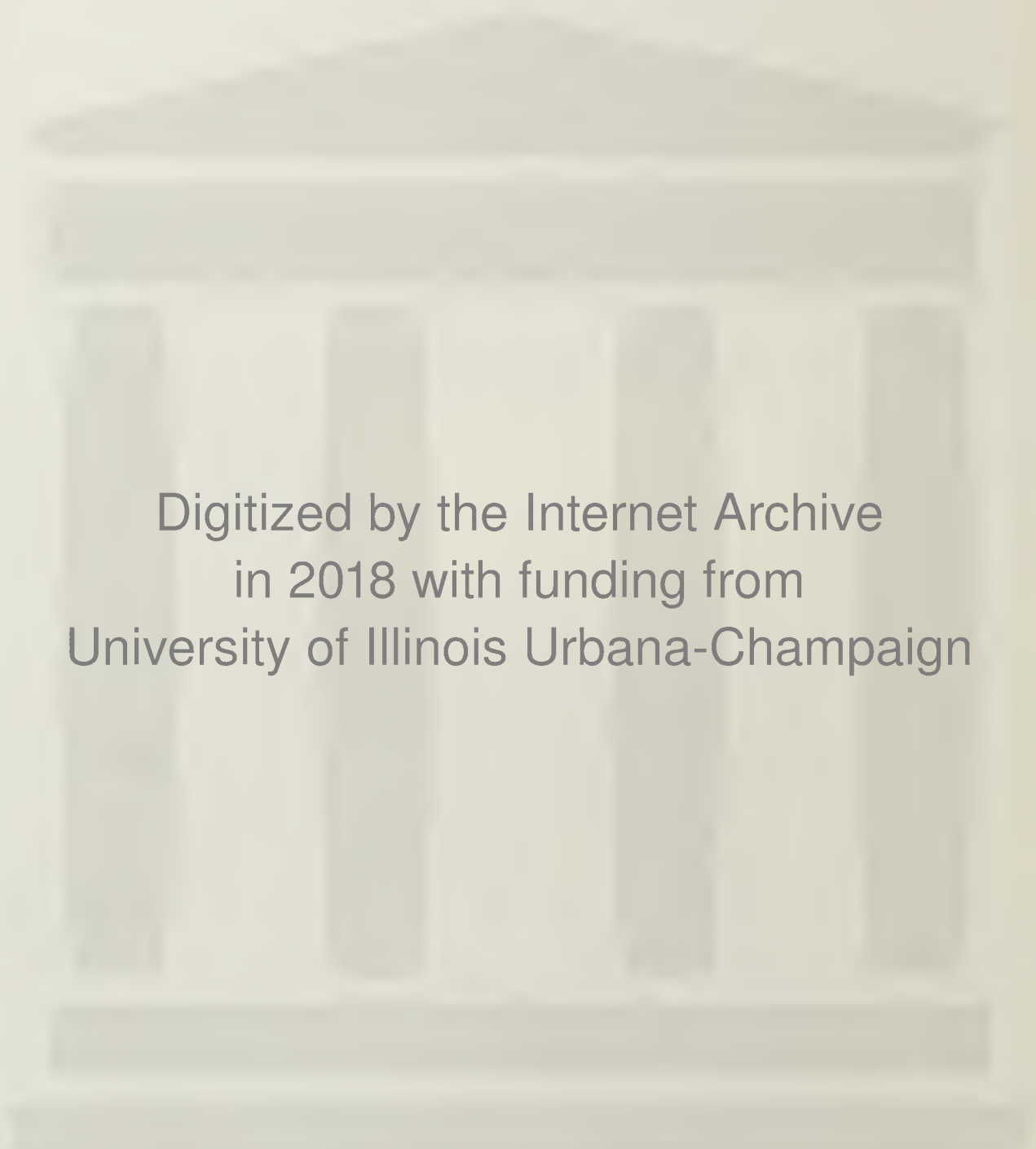


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ADMINISTRATIVE ACTION

FINAL

ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

and

Illinois Department of Transportation

Submitted pursuant to 42 U.S.C. 4332 (2) (C), and
23 U.S.C. 128 (a)

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23 U.S.C. 128 (a)



APPROVED AND ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION

3-9-77

Date

/s/ W. G. Emrich

Director, Office of Environment & Design
for the
Regional Federal Highway Administrator

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ENVIRONMENTAL IMPACT STATEMENT
I-255 JEFFERSON BARRACKS BRIDGE AND APPROACH ROAD
MONROE COUNTY, ILLINOIS/ST. LOUIS COUNTY, MISSOURI

TABLE OF CONTENTS

	<u>Page</u>
Summary	
Project Description	S- 1
Environmental Impacts of the Proposed Improvement	S- 3
Permits	S- 5
Alternatives	S- 5
Conclusions and Recommendations	S- 6
Agencies Requested to Comment	S- 6
Date of Availability	S- 9
Chapter	
I	Description of the Proposed Action and Its Surroundings
	Regional Setting I- 2
	Existing Facility I- 4
	Proposed Action I- 5
	Need for the Project I- 7
	Safety Benefits I- 9
	Historical Resume I- 9
	Project Surroundings I-10
II	Land Use Planning
	Future Land Use II-2
	Project Compatibility II-4
	Major Unresolved Planning Issues II-5
	Construction Scheduling II-7
III	Alternatives
	Build on New Alignment III-1
	Do Nothing III-1
	Improve Existing Facilities III-2
	Provide Rapid Transit III-3
IV	Probable Impact of Proposed Action on the Environment
	Air Quality IV- 1
	Noise Levels IV- 2
	Water Quality IV- 3
	Flood Control IV- 5
	Ecology IV- 7
	Socioeconomic Conditions IV- 8
	Archeological and Historic Resumes IV-12
	Construction IV-12b
	Secondary Impacts IV-12c
	Unavoidable Adverse Effects IV-13
	Short Term Use of Environment/Long Term Productivity IV-14
	Irreversible or Irretrievable Commitment of Resources IV-15
	Measures to Minimize Harm IV-15
V	Coordination

TABLE OF CONTENTS (Cont'd.)

		<u>Page</u>
VI	Disposition of Comments	
	Agencies Providing Substantive Comments	VI- 1
	Agencies Offering Comments Requiring No Response	VI-31

Bibliography

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>	<u>Following Page</u>
1	Project Location	I- 1
2	Existing Facility, Grade Separations and Intersections	I- 4
3	Plan and Profile of Proposed New Structure	I- 5
4	Location of Proposed Interchanges	I- 6
5	Typical Roadway Cross Sections	I- 6
6	Proposed Right of Way and Major Grade Separations	I- 6
7	Current Status of Right of Way Acquisition and Fill Placement	I-10
8	Natural Features and Geologic Profile	I-10
9	Monroe County Existing Land Use	I-17
10	Local Roads	I-18
11	Historic Landmarks and Archeological Sites	I-19
12	Zoning - Monroe County and Environs	I-19a
13	Regional Growth Pattern	II- 1
14	1995 Regional Land Use Plan	II- 1
15	Future Land Use in Project Area	II- 2
16	St. Louis Area Road Plan	II- 3
17	St. Louis Region Short Range Highway Projects	II- 3
18	Highway Network Deficiencies - 1990 Traffic on Existing Facilities	II- 3
19	Highway Network Deficiencies - 1990 Traffic with Proposed Freeway Improvements	II- 3
20	Noise Inventory Sites and 70 dB(A) Contours	IV- 2

Table

1	Comparison of Existing Roadway Accident Experience and Accident Potential of Full Control of Access	I- 9
2	Historic Landmarks and Structures in Columbia, Illinois	I-19
3	Historic Landmarks and Structures Near Columbia, Illinois	I-19
4	Noise Levels at Local Receptors	IV-2

APPENDICES

Appendix

- A Section 106 Determinations
- B Special Provision for Water Pollution Control and Excerpts
 from Standard Specifications for Road and Bridge Construction
- C Summary Review of Direct Contacts Made to Obtain Information
- D Selected Correspondence from Affected Agencies

SUMMARY

Federal Highway Administration
Administrative Action Environmental Statement
() Draft (X) Final
() Section 4(f) Statement attached

These people are the contacts for additional information concerning the project and statement:

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P.O. Box 838
Fairview Heights, Illinois 62208

Phone: 618/397-9530

PROJECT DESCRIPTION

This Environmental Impact Statement addresses the proposed replacement of the Jefferson Barracks bridge over the Mississippi River with dual 4,000 foot structures and reconstruction of approximately 2 miles of approach road on U.S. Route 50, as a federal and state funded improvement. The proposed project is located in Monroe County, Illinois and St. Louis County, Missouri, approximately 11 miles south of downtown St. Louis (see Figure 1).

The improvement is planned for a section of roadway that covers a distance of 2.6 miles, includes a major crossing of the Mississippi River and represents, in this area of the St. Louis region, the sole link between the road network in Missouri and the road network in Illinois. On the Missouri side of the river, it constitutes the continuation of I-270, the Interstate freeway that circumscribes St. Louis on the west. The western terminus of the improvement is in St. Louis County and lies immediately east of the soon to be constructed interchange at Koch Road, which is also known as Koch Hospital Road. On the Illinois side in Monroe County, the eastern terminus is the existing connection with Illinois Route 3.

It is intended that this section of roadway connect to the Illinois portion of the circumferential Interstate freeway that would circumscribe St. Louis and East St. Louis on the east. This section of roadway would also connect to Supplemental Freeway 410 (F-410), and to a possible future "outer belt", as indicated in Figure 1.

New studies are currently under way to address specific sections of I-255 and F-410; for instance, that section of I-255 which extends north and east from the eastern terminus of the proposed improvement to I-55 near Collinsville, Illinois has had a Draft EIS circulated, and a public hearing has been held. Two sections of F-410 are currently in the Design Study phase; one section extends from the eastern terminus of the proposed project northward coincident with I-255 to Dupou, the other southeasterly to I-57 near Marion, Illinois.

An "outer belt" (extending from the eastern terminus of the proposed project, north and east via Belleville and Collinsville, to a junction with I-55 near Troy, Illinois is also included in the Transportation Plan for the area. Although this facility is yet under study, it would be needed to complete the Illinois portion of the circumferential freeway, should the decision be to not build either F-410 or I-255. Appropriate planning, environmental and engineering studies for the "outer belt" would be advanced accordingly.

And there is the construction of a proposed new metropolitan/international airport and its impact on the project to be considered. A new airport is expected to impose a significant travel demand on the Jefferson Barracks crossing whether or not these other freeway facilities are constructed.

As a consequence, this section of roadway, since it stands alone in this area of the region as the link between the road network in Illinois and the road network in Missouri, has the sole responsibility, aside from its highway route designation (Interstate included), for handling the traffic that will flow between any given combination of existing and/or proposed future sections of these networks. Thus, this section of roadway is considered as a separate entity, independent of the other proposed highway improvements, since it could eventually become a part of any one of them.

The roadway presently consists of a 22 foot two-lane pavement with a right of way that varies from 140 to 200 feet. The average daily traffic (ADT) was 13,500 vehicles per day in 1973.

The proposed improvement will provide two 3-lane fully controlled access roadways separated by a 64 foot and variable depressed earth median. Access will be via interchanges. The design year (1996) average daily traffic volume on this section of the Interstate System has been placed at 48,169 vehicles per day. The new facility will be located within a right of way that will range to 575 feet and the acquisition of all necessary right of way (approximately 50 acres) has been accomplished prior to the requirement for an EIS. The cost of the improvement is estimated to be \$47 million.

ENVIRONMENTAL IMPACTS OF THE PROPOSED IMPROVEMENT

- . The proposed improvement will provide a safe, efficient, and convenient facility for interstate and coast to coast travel as well as local travel between communities. The design of the facility to Interstate highway standards will result in some adverse travel for local residents.
- . The high volume capacity of the improvement will provide an excellent route for defense related evacuation of the St. Louis Metropolitan Area and permit the efficient movement of public safety, military, and public health vehicles under emergency conditions.
- . The proposed improvement will provide improved access to the industrial areas of Dupon, Centreville, Cahokia, and East St. Louis. The highway will provide good access to a proposed Planned Unit Development southwest of Columbia.
- . The improvement will create during the duration of the project 1680 man-years of direct construction employment and 4780 man-years of employment in jobs indirectly associated with construction.
- . Gentle roadway grades that follow the existing terrain and the soft structural lines of the bridge should provide a pleasing view of the highway and the bridge. From the bridge the traveler will have a view of the Mississippi River, its bluffs and floodplain.
- . Since none exist, the proposed improvement will have no impact on the character of existing communities or neighborhoods, nor will it require the relocation of any homes, businesses or industry.
- . There will be no reduction in either regional or local transit service; however, improved access created by the proposed action may in the future provide the justification for additional service.

- . The buses operated by the Columbia Community School District No. 4 travel portions of the existing road. The routes they take will have to be slightly adjusted, as they are each year in response to changes in the number and location of students.
- . The proposed improvement will have no effect on the local fire district and the county sheriff patrol area. Major routes normally used by fire protection equipment and patrol cars will remain open. The protection provided will not be diminished, nor will any area be isolated.
- . The proposed improvement should have no adverse effect on public health but it is expected to reduce the number of highway related accidents and fatalities.
- . It will be necessary to make adjustments to existing utilities; however, these adjustments are not expected to interrupt service.
- . The proposed improvement will not affect any religious institutions or practices, nor will any church related facilities be affected, since there are none in the immediate area.
- . There will be a slight reduction in the Monroe County tax base and related revenues.
- . The construction of the proposed improvement will result in the loss of approximately 30 acres of farmland that could be used to raise either 3000 bushels of corn (100 per acre), 1200 bushels of wheat (40 per acre), or 1050 bushels of soybeans (35 per acre) per year over the life of the facility (design life is 20 years). This is in contrast to an estimated 15 lives (one life per year over a 15 year period after construction is completed) that would be lost if the proposed facility is not built.
- . This section of Interstate 255 will not affect any recreation areas, 4 (f) lands, historic landmarks or historic structures. A memorandum of agreement has been executed which provides for the preservation of the archeological resources that are affected by the proposed action.
- . The levels of air pollutants generated by future traffic using this section of Interstate 255 will be within acceptable Federal standards.

- . The proposed improvement will not create a significant noise impact, since the various receptors are buffered either by distance or foliage.
- . The poor quality of the water in the area is due primarily to non-highway pollutants. The chloride from de-icing salts that is carried intermittently in runoff from the highway will not unduly affect the surrounding streams and groundwater aquifers.
- . The impact of the proposed improvement on the ecology of the area will be minimal. Some vegetation and habitat for animals will be removed; however, the extent of this destruction is small when compared with the scope of the habitat in the surrounding area. No rare or endangered species are presently located along the existing facility.
- . The overall cumulative primary and secondary consequences of the project will neither significantly alter the quality nor curtail choices of the beneficial use of the human environment nor will they interfere with the attainment of long range human environmental goals.

The studies conducted to date have not identified any significant effects on the human environment resulting from the proposed action.

PERMITS

The project will require the issuance of permits by the U.S. Coast Guard (Section 9) and by the U.S. Army Corps of Engineers (Section 404). Both permits have been applied for.

ALTERNATIVES

Several broad alternatives have been under consideration. They are as follows:

- . Do nothing.
- . Meet future needs with a Rapid Transit facility.
- . Meet future needs on a new alignment.
- . Improve existing roadway.

These alternatives would have the following consequences.

To do nothing would leave an important segment of the metropolitan "belt route" unfinished, thus forcing future traffic into a progressively worsening condition on the existing 2 lane structure and the Poplar Street Bridge, an 8 lane facility. Each of these two facilities is rapidly approaching its design capacity. Accidents and fuel consumption would increase accordingly.

The type and character of future traffic in this section of the region does not warrant or support the need for a Rapid Transit facility, according to a study conducted by the regional 3C planning agency, the East-West Gateway Coordinating Council.

The construction of this section of I-255 on another alignment would be incompatible with the plans for the continuation of this Federal Interstate belt route and the sections of the route that are already constructed in Missouri.

The improvement of the existing 2 lane road to a 6 lane roadway employing Interstate highway standards is consistent with the plans for development which have been approved by the East-West Gateway Coordinating Council and the Southwestern Illinois Metropolitan and Regional Planning Commission. It will meet the needs estimated for 20 years hence and beyond.

CONCLUSION AND RECOMMENDATION

For the reason mentioned previously, the recommended alternative is to construct the 6-lane highway needed to complete the Interstate beltline highway in the St. Louis Metropolitan Area.

AGENCIES REQUESTED TO COMMENT

The following is a list of federal, state, local and other organizations from which comments have been requested (the Veterans Administration was contacted under the Koch Road interchange project). The agencies and organizations that responded are denoted by an asterisk (*).

- * Advisory Council on Historic Preservation
- Council on Environmental Quality
- * Environmental Protection Agency
- Federal Energy Administration
- Federal Power Commission
- Office of Economic Opportunity
- * U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Defense, U.S. Army Corps of Engineers
- * U.S. Department of Health, Education and Welfare

- * U.S. Department of Housing and Urban Development
 - * U.S. Department of the Interior
 - U.S. Department of Transportation
 - * Federal Aviation Administration
 - Federal Railroad Administration
 - Office of Environmental Affairs
 - Urban Mass Transportation Administration
 - * U.S. Coast Guard
 - * Assistant Secretary for Environment, Safety, and Consumer Affairs
- State Agencies (through Illinois State Clearinghouse)

- Governor's Task Force on Flood Control
 Bureau of the Budget
 State of Illinois, Department of Agriculture
- * State of Illinois, Department of Business and Economic Development
 - State of Illinois, Department of Conservation
 - State of Illinois, Department of Local Government Affairs
 - * State of Illinois, Department of Mines and Minerals
 - State of Illinois, Department of Public Health
 - * State of Illinois, Department of Transportation, Division of Aeronautics
 - State of Illinois, Department of Transportation, Division of Waterways
 - State of Illinois, Archaeological Survey
 - * State of Illinois, Environmental Protection Agency
 - State of Illinois, Geological Survey
 - * State of Illinois, Natural History Survey
 - * State of Illinois, Water Survey
 - Office of Comprehensive Health Planning

Other State Agencies

- Illinois Nature Preserve Commission
- * Missouri State Highway Commission

Metropolitan Area Agencies

- Alliance for Regional Community Health
 Bi-State Development Agency
- * East-West Gateway Coordinating Council
 - * Southwestern Illinois Metropolitan and Regional Planning Commission
 - Mayor, City of St. Louis
 - Supervisor, County of St. Louis
 - St. Louis County Planning Department
 - St. Louis County Department of Parks and Recreation
 - * St. Louis County Department of Highways and Traffic

Local Agencies, Organizations and Individuals

Governmental Agencies:

- * St. Clair County Board of Supervisors
St. Clair County Planning Commission
St. Clair County Superintendent of Schools
St. Clair County Superintendent of Highways
St. Clair county Sheriff's Office
Monroe County Board of Commissioners
Monroe County Regional Planning Commission
Monroe County Superintendent of Schools
Monroe County Superintendent of Highways
Monroe County Sheriff's Office
- * Monroe County Zoning Commission
Mayor, City of Columbia
Mayor, City of Dupon
Board of Education, Unit District 4
Board of Education, Unit District 196

Railroad, Utilities, and Other Public Agencies:

- Illinois Central Gulf Railroad
 - * Missouri Pacific Railroad
Harrisonville Telephone Company
Illinois Power Company
Mississippi River Transmission Corporation
Prairie Dupont Levee and Sanitary District
Columbia Rural Fire Protection District
St. Louis Metropolitan Area Airport Authority
 - * Bi-State Parks Airport
Monroe County Soil and Water Conservation District
Kaskaskia Regional Port District
- ### Conservation and Environmental Organizations:

Coalition for the Environment
Environmental Response
HUSTLE - Help Us Save the Land and Environment
Illinois Audubon Society
Illinois Wildlife Federation
Izack Walton League of America, Inc.
Sierra Club (Piasa Palisades Group - Alton)
Monroe County Historical Society

Agricultural Organizations:

Monroe County Farm Bureau
Illinois Agricultural Association

Other Local Organizations and Individuals:

Associated General Contractors of St. Louis
Cahokia -Dupo Herald
Collinsville Herald Incorporated
The Columbia Star
East Side Associated Industries
Illinois Metro-East Corporation
International Union of Operating Engineers Local 520
Metro-East Journal
St. Louis Regional Commerce and Growth Association
Southern Illinois Builders Association
Southern Illinois Building and Construction Trades Council
Southwestern Illinois District Council - Laborer's International
Union of North America
United Brotherhood of Carpenters Local 1997
Carpenters Local 169

DATE OF AVAILABILITY

The Draft Environmental Impact Statement was made available to the Council on Environmental Quality and the public on January 27, 1976.

CHAPTER I

DESCRIPTION OF PROPOSED ACTION AND ITS SURROUNDINGS

This Environmental Impact Statement addresses the proposed replacement of the Jefferson Barracks bridge and construction of approximately 2 miles of approach road as a section of Federal-aid Interstate (FAI) Route 255 (I-255). The site of the proposed action is in Monroe County, Illinois and St. Louis County, Missouri, approximately 11 miles south of downtown St. Louis (see Figure 1).

The improvement is planned for a section of roadway that covers a distance of 2.6 miles, includes a major crossing of the Mississippi River and represents, in this area of the St. Louis region, the sole link between the road network in Missouri and the road network in Illinois. On the Missouri side of the river, it constitutes the continuation of I-270, the Interstate freeway that circumscribes St. Louis on the west. The western terminus of the improvement is in St. Louis County and lies immediately east of the soon to be constructed interchange with Koch Road, which is also known as Koch Hospital Road. On the Illinois side in Monroe County, the eastern terminus is the existing connection with Illinois Route 3.

The western terminus of the project had earlier been established, and thus identified in the DEIS (Draft Environmental Impact Statement), as the eastern limits of the interchange with Telegraph Road (Missouri Route 231). The Missouri State Highway Commission has since received approval from the Federal Highway Administration (FHWA) to proceed with the construction of the Koch Road interchange and proposed rest area and overlook, and the mainline roadway to existing I-270 construction at Telegraph Road, thus moving the western terminus of the project eastward to the eastern limits of the interchange with Koch Road.

It is intended that the proposed action connect to the Illinois portion of the circumferential Interstate freeway that would circumscribe St. Louis and East St. Louis on the east. The proposed improvement could also connect to Supplemental Freeway 410 (F-410), and to a possible future "outer belt", as indicated in Figure 1.

New studies are currently under way to address specific sections of I-255 and F-410; for instance, that section of I-255 which extends north and east from the eastern terminus of the proposed improvement to I-55 near Collinsville, Illinois has had a Draft EIS circulated, and a public hearing has been held. Two sections of F-410 are currently in the Design Study phase: one section extends from the eastern terminus of the proposed project northward coincident with I-255 to Dupon, the other southeasterly to I-57 near Marion, Illinois.

An "outer belt" has been recommended for further study as part of the 1995 transportation plan for the area. The facility would extend from the eastern terminus of the proposed action, north and east via Belleville and Collinsville, to a junction with I-55 near Troy, Illinois.

The existing bridge intersects the Illinois-Missouri state line as it spans the Mississippi River and derives its name from the long standing military installation that sits to the north on the bluffs above the west bank of the river. The J.B. bridge, as it is called locally, represents the only crossing of the Mississippi River available to traffic moving in the southern sections of the St. Louis Metropolitan Area. As a result, the road it carries, presently identified as U.S. Route 50, stands alone in this area as the link between the road network in Illinois and the road network in Missouri, and as such, has the sole responsibility, aside from its highway route designation, for handling the traffic that will flow between the existing and proposed future sections of these networks. This singular role puts in focus the need to consider the proposed action as a separate and individual project, independent of other proposed highway improvements, since it could eventually become a part of either I-255 or the "outer belt", and/or the direct connection between F-410 and the road network in Missouri.

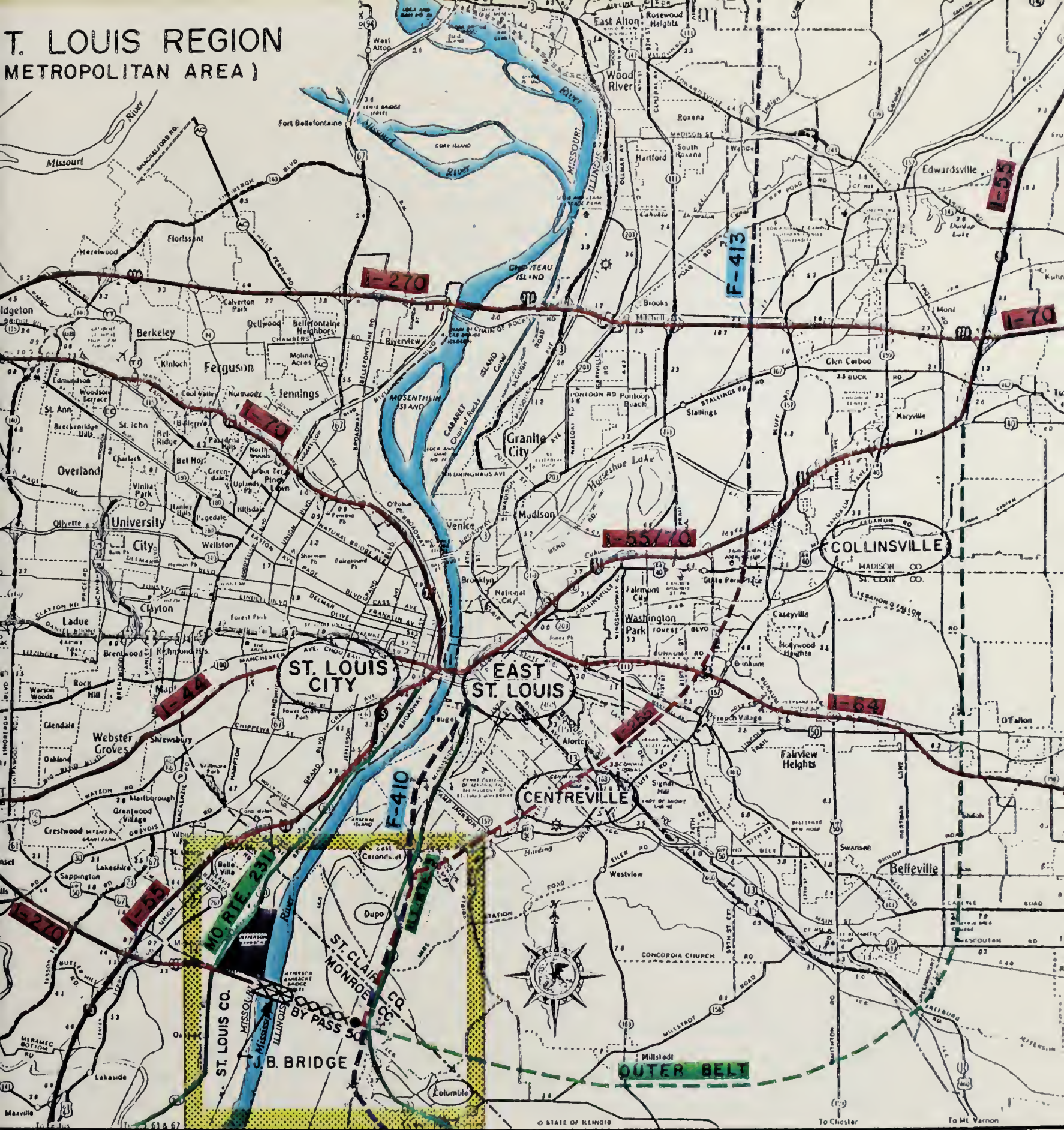
The improvement is intended when completed to be a part of the Federal Interstate belt highway which in Illinois will extend from the J.B. bridge to a terminus at I-55 near Collinsville. The short Missouri section of the improvement, i.e., from the bridge westward to the eastern terminus of the Koch Road interchange, will complete that portion of the Interstate belt highway located west of the Mississippi River.

The 18 mile section of I-255 in Illinois that extends from the southernmost interchange with F-410 to I-55 west of Collinsville, as noted earlier, is the subject of a separate Environmental Impact Statement (EIS) identified as FHWA-ILL-EIS-75-02-D. F-410 will be the subject of a separate EIS. Another highway improvement, Illinois Supplemental Freeway, FAP Route 413, is presently in the planning stage as a continuation of I-255, north of I-55 (see Figure 1).

REGIONAL SETTING

The St. Louis region, an area that is home for almost 2.5 million people, has the unique advantage of being located at the confluence of the two largest rivers in North America, The Mississippi and Missouri Rivers. These rivers and the unlimited supply of water they provide, have largely been responsible for the urban development that has grown around them. Most of the urban population as well as the industries located in the central area of the region draw their water supply from these rivers. The Mississippi River is also a state line for Illinois and Missouri.

T. LOUIS REGION (METROPOLITAN AREA)



LEGEND

- LIMITS OF PROJECT
- JEFFERSON BARRACKS
- ▨ AREA OF PRINCIPAL CONCERN
- ▤ JEFFERSON BARRACKS BRIDGE
- XXX U.S. BY PASS 50 (APPROACH ROAD)
- — — INTERSTATE ROUTE
- — — ILL. SUPPLEMENTAL FWY.
- — — STATE ROUTE

FIGURE 1

PROJECT LOCATION

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

The physical characteristics of the region vary radically from area to area, ranging from the flat plains and low Mississippi River basin areas of Illinois to the rugged topography in Missouri. Although there is some overlap, the topography, size of watersheds, and natural vegetation are quite different on the two sides of the Mississippi River. These surface differences reflect different combinations of soils and bedrock, which in turn determine the suitability of areas for different types of land uses. The land forms can be generally classified in three categories, the floodplains of the Mississippi and Missouri Rivers, the hilly uplands of Missouri and the relatively flat plains of Illinois. Other lesser floodplains located throughout the region have characteristics similar to those of the major rivers.

The Mississippi floodplain on the north extends from the northwest in Missouri along an east-west axis across the northern edge of the City of St. Louis to the American Bottoms in Illinois and then southward on a north-south axis thru St. Clair County to the southern boundary of Monroe County. The American Bottoms range in width, from the river back to the Illinois bluffs, from three to twelve miles and are characterized by generally fertile, alluvial soils. The Missouri River bottomland although much narrower is also significant for its natural agricultural value.

Most of the Missouri portion of the St. Louis region is hilly uplands which increase in ruggedness to the south and west where the "Ozark" character of land form becomes evident. As compared with the sparse vegetation of the Illinois portion much of this area is forest covered, except where it has been cleared for agricultural purposes. The soils are thin and stony in the southwestern reaches of the region.

Easterly from the top of the bluffs which form the boundary of the American Bottoms, the Illinois terrain is characterized by relatively flat to gently rolling land, typical of the midwestern plains with grass cover predominating except for the stream and river valleys that are flanked with trees.

The major flood prone areas of the region are located along the Missouri and Mississippi Rivers. The American Bottoms, the old floodplain of the Mississippi, is protected by an extensive levee system while other areas have minor protection (further extensions to the levee system along the Missouri River are currently under consideration). Minor flood prone areas are found primarily in the basins of streams and smaller rivers.

The climate in the region is moderate having temperatures that range from highs in summer of 100 to lows in winter of zero Fahrenheit and below. Rainfall averages 36 inches per year.

The region is a leading transportation center. It enjoys the benefits of large interstate rail and trucking networks. Twenty freight forwarders and about 150 cartage companies use a major share of the 1300 miles of arterial streets and highways in the region to pick up and distribute goods throughout the local area. The advantage of immediate access to the Mississippi River makes it a major inland port. And air transportation is good. Lambert-St. Louis is an international airport and four other publicly owned airfields provide excellent facilities for general aviation activities. The proposed development of I-255 will provide easy access to one of these, Bi State Parks Airport located in East St. Louis, Illinois.

The region has a large stable labor force and numerous natural resources. It is rich in coal having the largest bituminous fields in the country located nearby. Presently the coal is principally used to generate power in the form of electricity. Other uses for the coal are found in the chemical industry which accounts for a large share of the area's industrial capacity. The abundant water resources and coal reserves provide excellent opportunities for the production of by-products of coal gasification and liquefaction. The region is also rich in limestone and lead, with abundant supplies of sand, gravel, clay and shale.

EXISTING FACILITY

The existing highway (U.S. Bypass Route 50) consists of a 22 foot 2-lane roadway and two 10-foot earth and gravel shoulders within a right of way that ranges from 140 to 200 feet in width. The Jefferson Barracks bridge carries the roadway across the Mississippi River as a 24 foot (face to face of curb) reinforced concrete pavement on steel framing. Approximately 14,000 vehicles per day used the bridge in 1974.

The bridge which was built about 1942, consists of a three span cantilever thru truss (over the channel) and 15 approach spans; four in Missouri and 11 in Illinois (see Figure 2). Two of the four approach spans in Missouri are steel deck truss spans; the other two are steel girder spans. In Illinois there are five steel deck truss spans and six steel girder spans. The bridge is 3,625 feet in length and provides a channel opening of about 640 feet. The bridge also allows a minimum vertical clearance of 72 feet above high water.

The bridge substructure contains a complement of reinforced concrete piers and abutments. The piers which support the main trusses are founded on rock. The piers and abutment which support the approach from Missouri are also founded on rock, while the piers and abutment which support the approach from Illinois are set on concrete and timber piles.



FIGURE 2
EXISTING FACILITY,
GRADE SEPARATIONS
AND INTERSECTIONS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

The illustration in Figure 2 also displays the location of the other existing grade separations including the drainage structures that separate the roadway from Fish Lake and Hill Lake Creek. A major structure separates the grade of the highway and the railroad intersection of the Illinois Central Gulf Railroad and Missouri Pacific Railroad in Illinois. The existing Jefferson Barracks bridge also serves as an overpass of the Missouri Pacific Railroad in Missouri. Power transmission lines cross over the highway at two locations and gas pipelines intersect the highway at two underground locations.

The roadway intersects at grade the junction of Township Roads 26 and 28 and Township Road 28A. The average daily traffic (ADT) in 1973 was 13,500 vehicles per day.

PROPOSED ACTION

The proposed new bridge will provide three 12 foot traffic lanes for each direction of travel to serve future design hourly volumes. A new 3 lane structure which will serve westbound traffic will be constructed approximately 100 feet to the north of the centerline of the existing 2 lane bridge. A new 3 lane roadway to carry westbound traffic will be constructed parallel to the existing 2 lane roadway alignment.

Following the completion of the first 3 lane bridge and roadway, the existing bridge will be replaced by a second 3 lane structure and the existing roadway will be reconstructed as a 3 lane pavement to carry the eastbound component of traffic.

Each structure of the bridge will consist of fourteen approach spans and a tied arch to span the navigation channel of the river (see Figure 3). The superstructure of the approach spans will consist of a reinforced concrete roadway supported on steel plate girders. The superstructure of the main span (tied arch) will be a reinforced concrete roadway supported by rolled beam stringers and steel plate girder floorbeams. The steel tied arch will have a span of 910 feet and a rise of 180 feet.

The substructure will consist of reinforced concrete piers. The piers for the approach spans will be supported on steel and concrete piling. The navigation channel piers will be supported on caissons founded in rock. Steel sheet piling cofferdams will be required to construct the foundations.

The tied arch-span over the navigation channel will provide a horizontal clearance of 850 feet and a minimum vertical clearance of 60 feet. Navigation lighting will be provided in accordance with the requirements of the United States Coast Guard.

The new crossing will have a total length of approximately 4,000 feet; the bridge and new roadway will cover a distance of 2.6 miles from the limits of proposed new construction of I-270 in Missouri approximately one-half mile east of the interchange with Koch Road to the gore of the ramps that will become the junction with Supplemental Freeway F-410, which will follow the general alignment of Illinois Route 3 (see figure 4). Access will be via these two interchanges and the existing intersection with Illinois Route 3 will serve as access prior to the completion of the interchange with F-410.

The proposed improvement will provide two 3 lane fully controlled access roadways separated by a 64 foot and variable depressed earth median (see Figures 5 and 6). Design year average daily traffic (ADT) volumes on this section of the interstate system have been placed at 48, 169 vehicles per day. The new facility will be located within a right of way that will range to 575 feet. Acquisition of approximately 50 acres has been accomplished prior to requirements for an EIS. The proposed improvement will not change the distance between the termini of this section of the existing roadway.

The top of the existing embankment on the Illinois approach to the bridge is now approximately 4 feet below the high water elevation that has been established for a 50 year storm. In addition the waterway opening of the existing structure is less than is needed to prevent the backwater of a 200 year flood from rising above the minimum freeboard required on the upstream (Prairie DuPont) section of the Mississippi River levee. The elevation of the existing roadway (U.S. Bypass Route 50) and the elevation of the road that runs along the top of the levee (TR 26 and TR 28) will be raised accordingly as indicated in Figure 5. Thus the top of the new embankment where the new roadway crosses the levee will be no lower than the top of the levee upstream from the roadway. The levee road will also be grade separated, since it provides access to the pumping stations located both north and south of the proposed improvement and to several homes located on the landward side of the levee.

Drainage structures are proposed at major water courses in order to maintain the existing drainage pattern. Major drainage structures will be located at Fish Lake and Hill Lake Creek as indicated in Figure 6. Highway grade separation structures to maintain the existing local road network are proposed for the connection of township roads TR 26 and TR 28 (the levee road) and Township Road 28A (no local roads will be closed). Highway-railroad grade separation structures are proposed for the crossing of the Illinois Central Gulf Railroad and Missouri Pacific Railroad Company in Illinois. The structures of the new bridge will also span the tracks of the Missouri Pacific Railroad Company that lie below the bluffs in Missouri. Utilities located in the area of the proposed improvement are owned by the Mississippi River Gas Transmission Corp., and the Union Electric Co. Their facilities penetrate the area either underground or overhead. There are no plans to provide frontage roads within this section of the new freeway; however a new road will be constructed to provide local access to the area located south of Bypass 50 and west of TR 28 as indicated in Figure 6.

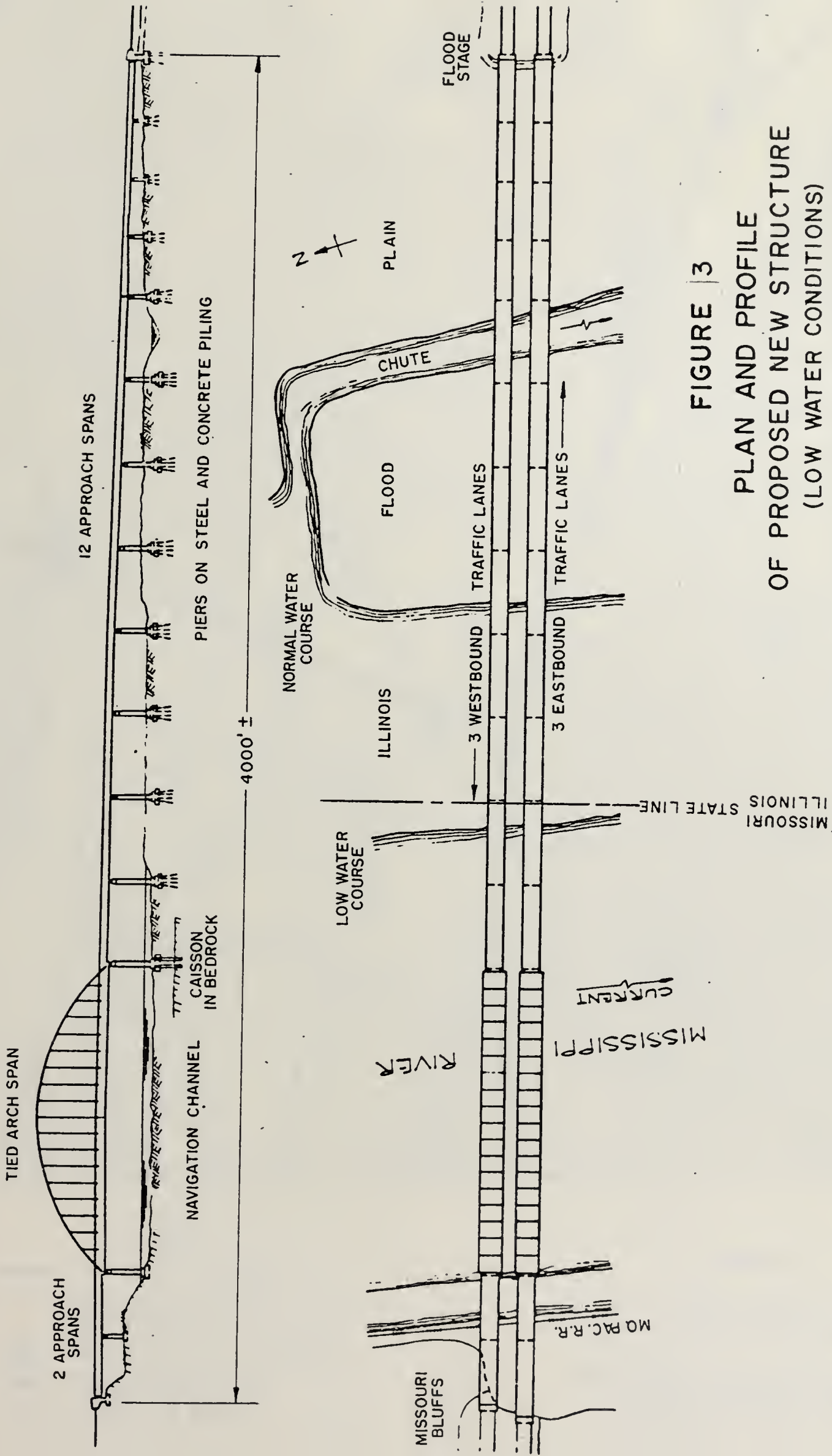
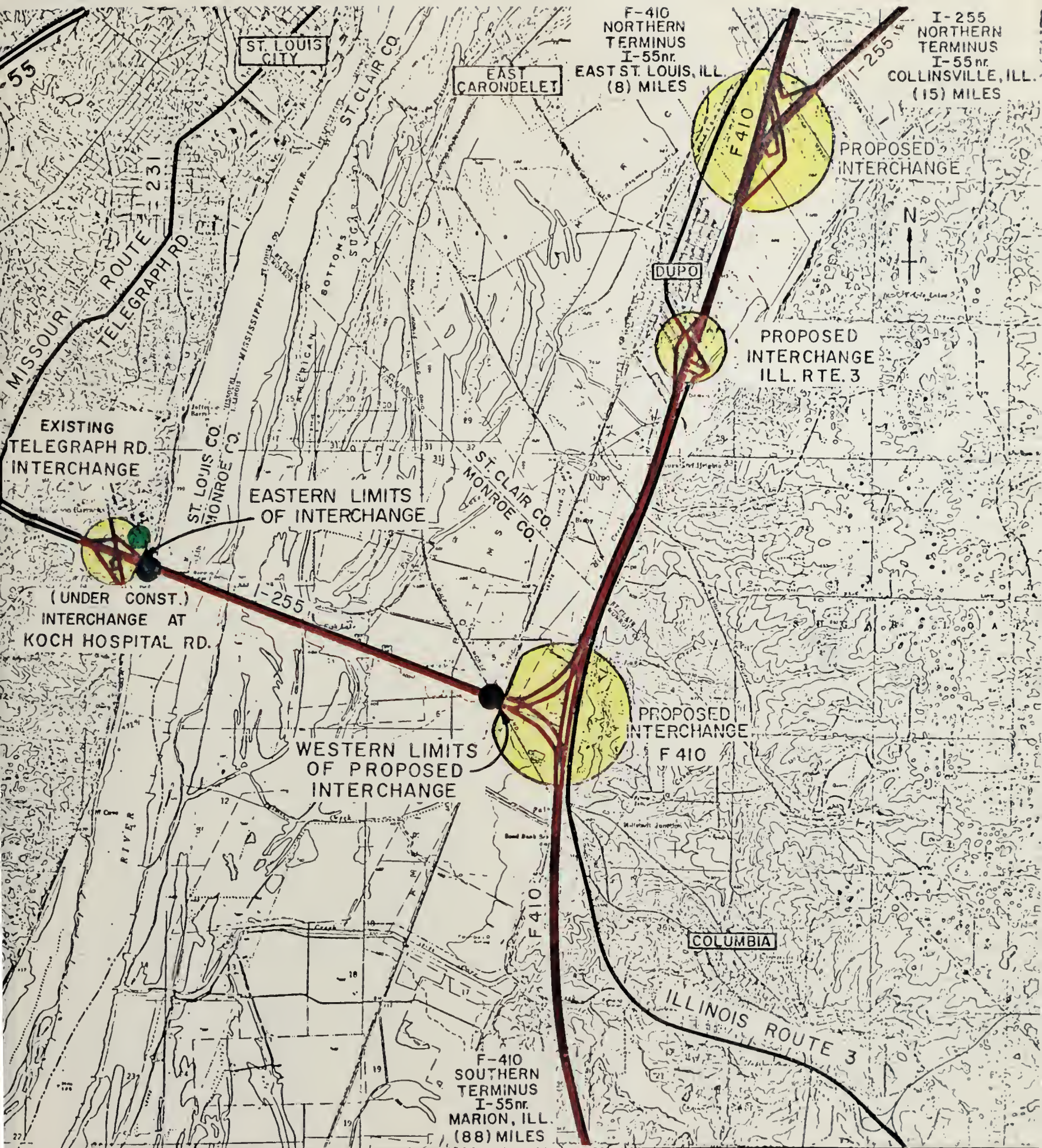


FIGURE 3

PLAN AND PROFILE
OF PROPOSED NEW STRUCTURE
(LOW WATER CONDITIONS)
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



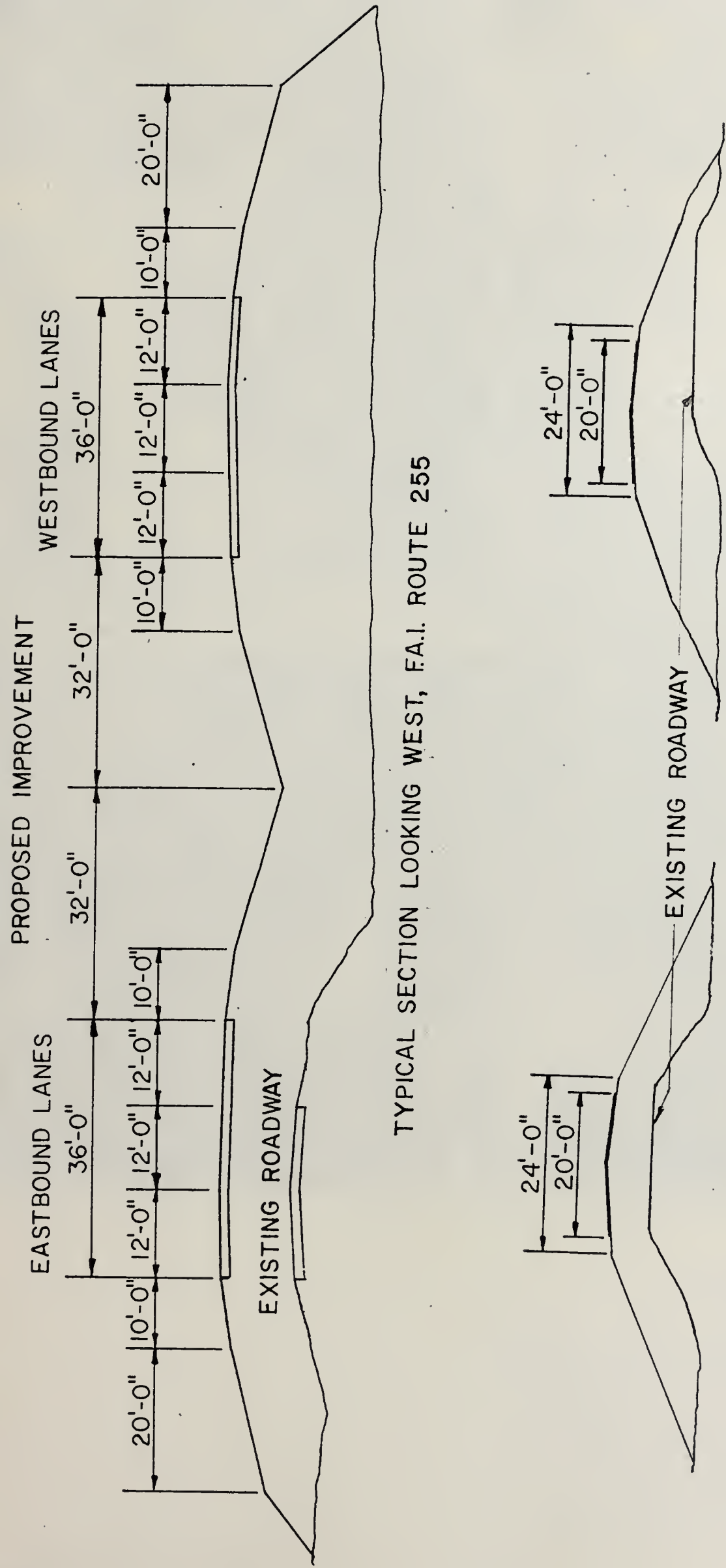
LEGEND

- LIMITS OF PROJECT
- LOCATION OF PROPOSED INTERCHANGE
- PROPOSED REST AREA
- PROPOSED ROAD
- EXISTING ROAD

FIGURE 4

LOCATION OF
PROPOSED INTERCHANGES

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



TYPICAL ROADWAY SECTION
TWP. ROAD 26 & TWP. ROAD 28

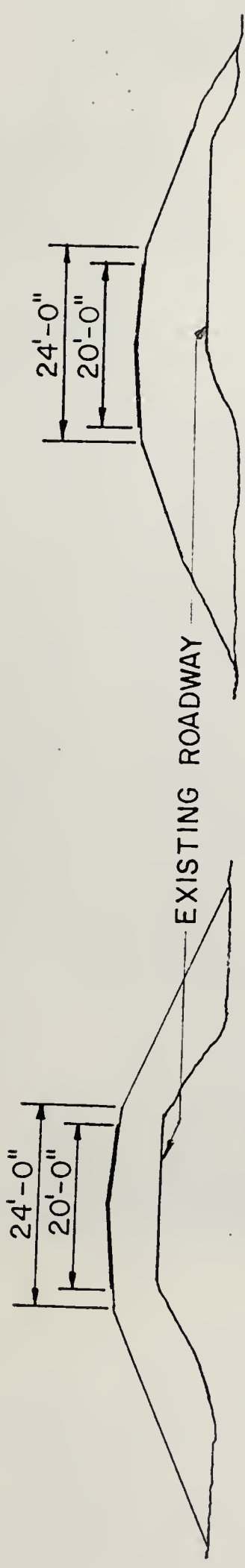
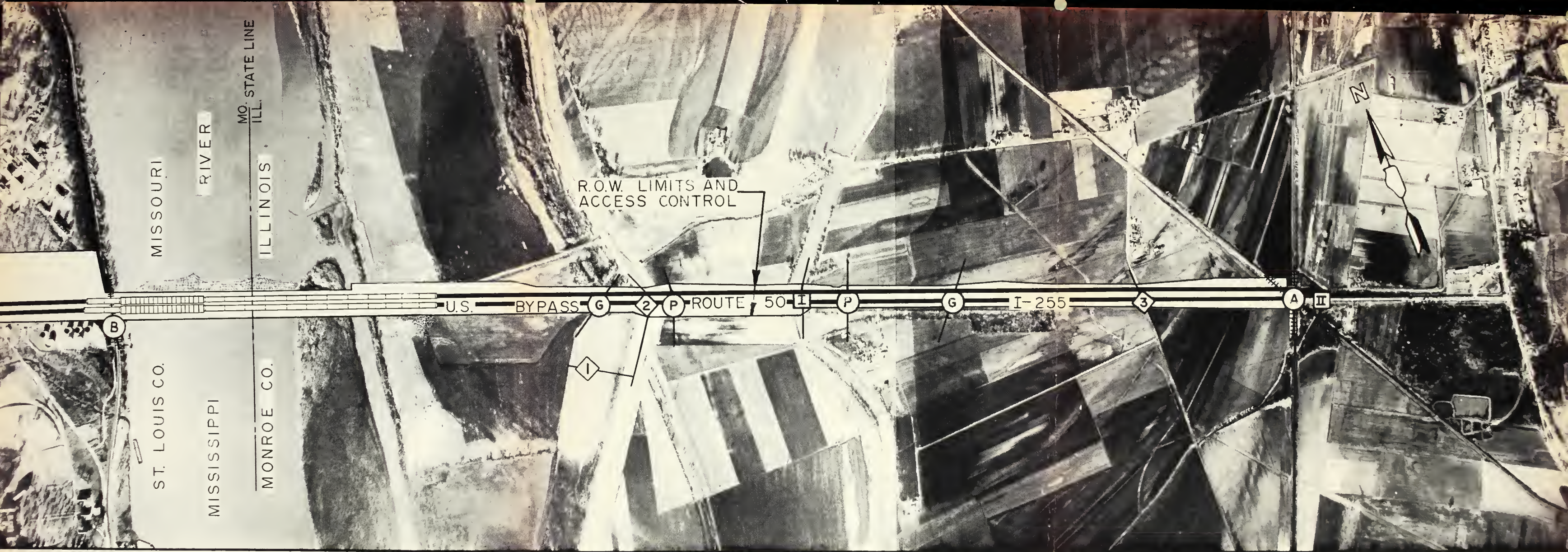


FIGURE 5
TYPICAL ROADWAY CROSS SECTIONS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



FIGURE 6

PLAN OF PROPOSED IMPROVEMENT
AND MAJOR GRADE SEPARATIONS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



LEGEND

- | | |
|-------------------------------------|--|
| ROADS | DRAINAGE |
| ① NEW LOCAL ACCESS | I FISH LAKE |
| ② TR 26 (NORTH) | II HILL LAKE CREEK |
| ③ TR 28 (SOUTH) | TRANSMISSION LINES (UTILITIES) |
| ④ TR 28A | P UNION ELECTRIC |
| RAIL | G MISSISSIPPI RIVER GAS TRANSMISSION CO. |
| A MO. PAC. (ST. L. SW.) I.C. G. RR. | |
| B MO. PAC. | |

FIGURE 6

PLAN OF PROPOSED IMPROVEMENT
AND MAJOR GRADE SEPARATIONS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

Borrow excavation required to complete the project will be obtained by the contractor, subject to approval of the source. Potential sources are borrow pits in the bottoms, borrow pits on the bluffs, quarry overburden or spoil, and hydraulic fill.

The improvement is estimated to cost approximately \$47 million. The right of way, engineering and construction costs for the bridge and approach roads are expected to be as follows:

	<u>Construction</u>	<u>Engineering</u>	<u>Right of Way</u>
Roadway	\$ 4,500,000	\$ 450,000	\$65,000
Bridge	<u>40,000,000</u>	<u>2,000,000</u>	<u>0</u>
Total -	\$44,500,000	\$2,450,000	\$65,000

NEED FOR THE PROJECT

The high ground that overlooks the Mississippi River on which St. Louis was settled provided the first inhabitants with good protection from attack and from major flooding; its easy access to nearby fertile soils of the floodplain helped promote the City's early growth. Its location near the confluence of the Mississippi and Missouri Rivers also provided the City with advantages in trade and commerce. As a result St. Louis early became the gateway for westward movements which in some measure even today use the vast river network that constitutes the Upper Mississippi River drainage basin.

The Eads Bridge, one of the first to span the wide Mississippi River, was opened to rail traffic in 1874. This improvement released St. Louis from its reliance on the river system for primary access to other parts of the nation and reduced the river's role as a barrier to interstate travel over land. The appearance of the motor vehicle shortly after the turn of the century increased pressures for quick and easy cross river access. The increase in mobility the auto provided also stimulated the expansion of business and industry in the area and the construction of bridges for highways as well as rail. This in turn produced a dramatic change in travel patterns. The resultant growth in development east and west of the river continues to spark the need to improve the facilities that provide the link between these two sections of the region and the nation.

The Jefferson Barracks bridge, in particular, needs attention. It is not only an important link in a regional belt roadway which is an integral part of the nation's system of interstate and defense highways, it is also a key link in the region's system of arterial roadways, serving to connect the road network in Illinois with the road network in Missouri. Traffic demand on the narrow and substandard 2 lane roadway it carries is fast approaching its ability to safely meet this demand (the average daily traffic in 1973 was 13,500 vehicles per day).

The East-West Gateway Coordinating Council, the 3C planning agency for the St. Louis region, has developed short and long range transportation plans for the area. Both plans are reviewed regularly in response to the effect ever changing conditions and community values have on land use, economic activity, and plans for street and highway network and transit facility improvements.

The Long Range Plan was recently updated to provide estimates of needs thru 1995. These estimates were based on forecasts of future 1995 land use and socio-economic parameters which reflect the adjustments in the forecasting procedure made since an earlier set of 1995 forecasts were prepared. The adjustments were made to respond to the declining rates of growth in population and economic activity experienced in the area during the 1960's.

Based on these lower growth rates and resultant forecasts, the Jefferson Barracks bridge is expected to attract average daily traffic demands which when combined with other design factors, results in a design hourly volume (DHV) that requires 3 lanes in each direction of travel. Additionally, the design hourly volumes of the other facilities that span the Mississippi River in the 1995 Plan when combined with the DHV of the proposed 6 lane Jefferson Barracks bridge and then compared with the average daily traffic expected to cross the river in 1995 result in a deficiency of 13 percent. It should be noted that this deficiency would increase to 35 percent if the existing 2 lane Jefferson Barracks bridge was not improved to 6 lanes. Put another way, failure to implement the proposed improvement would further impair the function of the bridge to divert traffic from those bridges that serve the central area, the Poplar Street bridge (Interstate 55) in particular, since the Jefferson Barracks bridge is the only bridge in the region located south of the major business and industrial districts of the central area.

Also, Monroe County officials have recently approved a major Planned Unit Development (PUD) called Chapel Spring. It is located southwest of Columbia and will provide housing for approximately 16,000 people, which represents about 50 percent of the growth anticipated in the 1995 planning forecasts for Monroe County. The proposed action would respond to this growth as an improvement in cross river access.

The proposed improvement therefore addresses several needs:

- . It is an important link in the nation's system of interstate and defense highways and the region's network of arterial roadways.
- . It will provide the facility needed to reduce the impact a deficiency in central area transriver capacity creates, and
- . It will improve the access to Monroe County in Illinois and thus assist in maintaining this area's relative economic position in the region.

It should also be noted that the 3C planning agency has included a proposal to develop a major airport near Columbia, Illinois in its long range planning. The project addressed in this document is compatible with that proposal.

SAFETY BENEFITS

The decision to upgrade the existing roadway to a limited access facility would produce approximately \$3.5 million in safety benefits while saving a minimum of 15 lives during a 15 year period following the completion of construction in 1980. If the facility were now in place five fewer lives would be lost over the next 5 years.

These estimates are based on a comparison of the rate at which motor vehicle related accidents, including those that involve non-fatal disabling injuries and fatalities, occur on limited access facilities located in rural areas and the current increase in the number of accidents observed along a 2.6 mile section of the existing roadway (see Table 1).

HISTORICAL RESUME

The plan to build a circumferential highway (belt road) east of the Mississippi River around East St. Louis has been on the books for a good many years, having been included in the Federal-aid Primary (FAP) System as long ago as June, 1955 as FAP Route 132. Shortly afterward it was designated Federal-aid Interstate Route 255 (I-255). Following the enactment of the Federal-aid Highway Act of 1962, which first established the 3C transportation planning process, and in keeping with the requirements of the Federal Housing Act of 1954, all subsequent transportation networks, developed individually or as part of a comprehensive plan, master plan or land use plan for the St. Louis Metropolitan Area or appropriate sub-area, have included an Interstate bypass around East St. Louis.

TABLE 1
COMPARISON OF EXISTING ROADWAY ACCIDENT EXPERIENCE
AND FULL CONTROL ACCIDENT POTENTIAL
Environmental Impact Statement
Jefferson Barracks Bridge and Approach Road
I-255-67B-EIS

	OBSERVED ACCIDENT EXPERIENCE (Existing Roadway*)			ESTIMATED ACCIDENT POTENTIAL Full Control of Access**	
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1980</u>	<u>1996</u>
Average Daily Traffic	13,300	13,400	13,500	30,800	48,200
Vehicle Miles of Travel***	.126	.127	.128	.314	.457
NUMBER OF ACCIDENTS:					
Property Damage Only	21	19	26		
Personal Injury & Fatalities	<u>13</u>	<u>15</u>	<u>21</u>		
Total	34	34	47	115/49	71
NUMBER OF FATALITIES	0	3	1	2.5/1	1.5
RATE PER 100,000,000 VEHICLE MILES OF TRAVEL:					
Total Accident Fatalities	269 -	267 23.6	367 7.8	367/156 7.8/3.4	156 3.4

*ADT and Number of Accidents from Records of Illinois Department of Transportation;
VMT and Accident Rates calculated by Alfred Benesch & Company.

**Table 6.16, "Accident Experience on Highways in 27 States with Full, Partial, and
No Control of Access", Traffic Engineering Handbook, Institute of Traffic Engineers,
Washington, D.C., 1965. These figures reflect annual averages.

***100,000,000 Vehicle Miles of Travel for a 2.6 mile section of roadway.

Action on the section of the belt highway addressed in this EIS has included a public hearing that was held on August 18, 1962, to discuss the location of I-255 from the bridge on the Mississippi River at Jefferson Barracks to a point northeast of Dupou, Illinois in St. Clair County. The location was subsequently approved on August 31, 1962. Preparation of plans began shortly after; the acquisition of right of way followed in 1965; thus, allowing the placement of fill to begin in 1967. To date approximately 290,000 cubic yards of fill have been set in place. The location of these activities is displayed in Figure 7.

The Federal Highway Administration (FHWA) in early 1969 adopted a process that now requires a second public hearing. Accordingly, a public hearing to discuss the design of I-255 for the section that, again, extends from the Jefferson Barracks bridge to Dupou, Illinois was held in October, 1970. Design approval was given in January, 1971. The Missouri section of this proposed action has followed a similar planning sequence.

It is unlikely that this project will be completed before 1980, although a considerable amount of work has already been expended. The major controlling factor will be the time required to design and construct the dual three lane structures that will carry the roadway across the Mississippi River.

PROJECT SURROUNDINGS

A comprehensive research of studies and reports of current conditions was combined with field investigations and reconnaissance, and interviews with representatives of numerous local (municipal and county), regional and State agencies to produce a picture of the project surroundings. The natural and ecological features are described first in terms of the area's topography, geology, hydrology, ecology, and vistas. This is followed by a discussion of the physical features that include land use, transportation facilities, public institutions and archeological and historical sites. Current zoning, property values, taxes, demographic characteristics, commuting patterns and community cohesion are also discussed. This section concludes with a review of existing air, noise and water quality.

Topography

Locally the project is flanked in the east and in the west by bluffs (see Figure 8). These bluffs form the lines of demarcation for the channel that lies between them. This three and one-half mile wide depression contains the Mississippi River and its floodplain. The river at this location is approximately one-half mile wide when flowing within the banks that form its normal course; the Illinois-Missouri state line generally follows the centerline of the river.

The river flows just below the bluff in Missouri. The floodplain is nearly level having little change in elevation between the toe of the eastern bluff and the top of the east bank of the river.

An island rests in the river at this location. It combines with the floodplain to form a narrow chute (channel) that is also a part of the river. A sandbar that lies submerged during most months of the year is located north of the island.

Geology

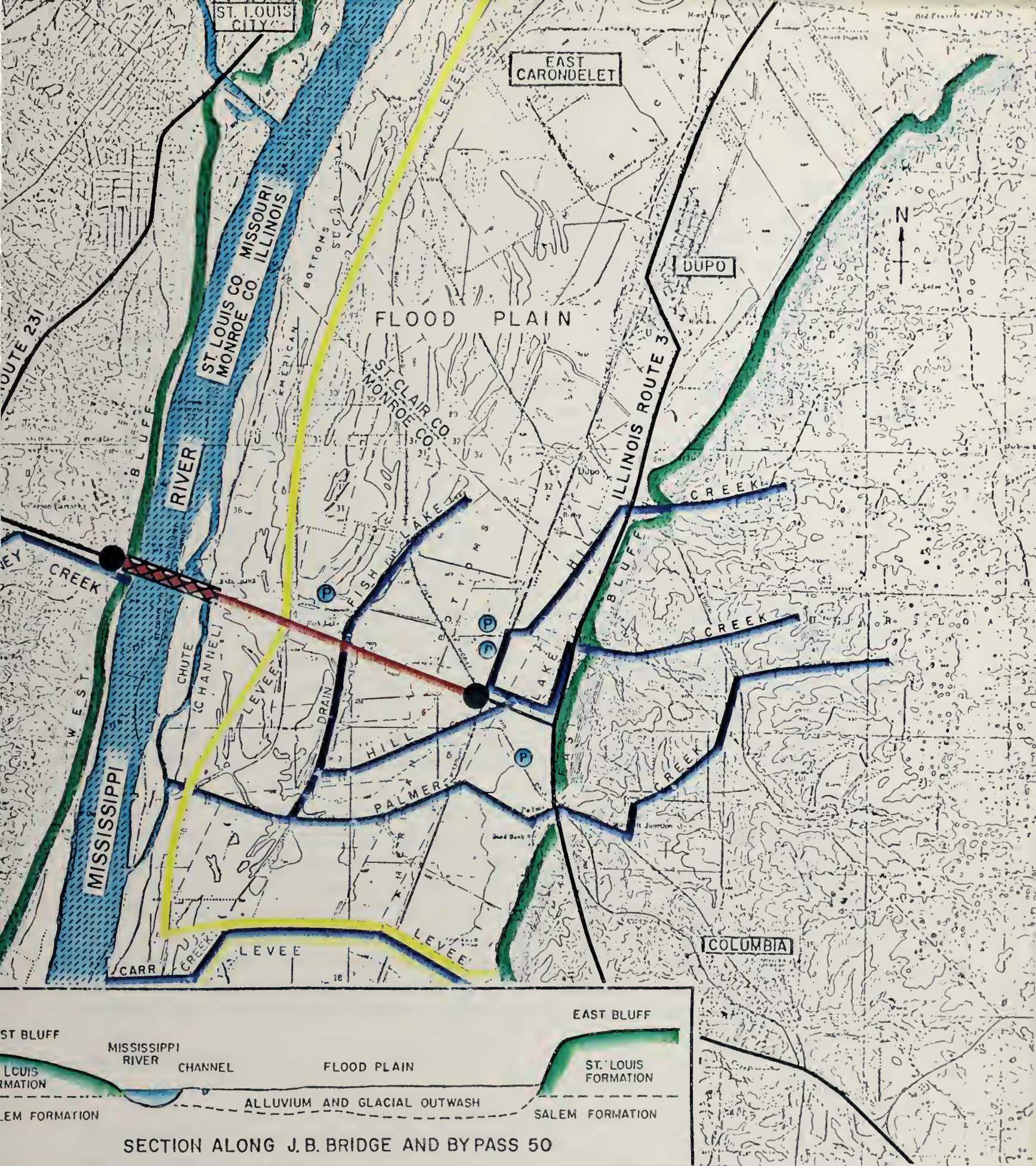
The St. Louis formation and the Salem formation below it constitute the bedrock units in the project area (see Figure 8). These rock formations were deposited in an epicontinental sea that existed in the area roughly 300 million years ago. Both formations are from the Merrimec series (Upper Mississippian age) and consist of limestones with varying amounts of clay, sand, chert, dolomite, and other minor constituents. These minerals vary in relative and absolute amounts both horizontally and vertically, making it difficult to delineate the exact line of contact between the two formations without the benefit of a laboratory study of an extensive series of soil samples. An exact determination is, however, of minor importance since the physical properties of the two formations are similar. Therefore, the level of the line of contact has been arbitrarily placed at an elevation of 375 feet above sea level.

The flow of the Mississippi River over the eons has removed the St. Louis formation and a portion of the Salem formation to as much as 150 feet below the present level of the floodplain, leaving the St. Louis formation to establish the bluffs that flank the river. The American Bottoms, the phrase used locally for the floodplain, is made up of alluvium (the material resulting from river erosion and deposited since the end of the glacial age) and to some extent, glacial outwash (material resulting from glacial action). These deposits contain soils that are classified in the Riley-Bowdre-Darwin-Cairo-Belknap group.

Generally speaking, the alluvial deposits are finer grained and exhibit better sorting than the glacial material. The alluvium is made up largely of sand silt-sized particles with minor clay. Glacial material ranges from clay size up to that of gravel. The mix of these materials since glacial times has resulted in boundaries between alluvium and glacial material that are extremely irregular and consequently difficult to delineate.



FIGURE 7
RIGHT OF WAY LIMITS
AND FILL PLACEMENT
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



LEGEND

- BLUFFS
- RIVER
- CREEK
- POND
- LEVEE SYSTEM
- J.B. BRIDGE AND BYPASS 50
- LIMITS OF PROJECT
- ILLINOIS AND MISSOURI STATE ROUTES

FIGURE 8

NATURAL FEATURES AND GEOLOGIC PROFILE

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

Structurally, the project area is simple. The regional dip, 60 to 80 feet per mile to the northeast, is somewhat constrained by the nearby Dupo anticline which begins to the north of the project area and extends southward in Illinois through Waterloo to Red Bud. The last noted seismic activity occurred in the 1940's as an earthquake centered in Monroe County.

Hydrology

The Mississippi River and its tributaries and the aquifers that underlie the bedrock and floodplain combine to form the system of hydrologic features that drain the project area. They also serve as water supply.

Mississippi River -

The Mississippi River is the main channel in a system that serves one of the largest drainage basins in the world. It consequently carries a large volume of water that has averaged 175,900 cubic feet per second (cfs) during the past 112 years. During a recent 15 month period, August, 1973 thru October, 1974, the average flow was 247,00 cfs with a low flow of 74,800 cfs and a high of 584,000 cfs. Average river velocities are between 2.5 and 3.0 feet per second (2 mph). The U.S. Corps of Engineers has determined that the volume carried during the worst known flood exceeded 1,300,000 cfs which is more than 7 times greater than the 112 year average. Under these conditions water in the channel would have rushed along at 5 to 6 mph.

These volumes and velocities have an important bearing on the effect an obstruction will have on the natural flow of the river. Like many bridges, reservoir and navigation dams in the upper Mississippi River and Missouri River basins, the abutments of the existing Jefferson Barracks Bridge have had their effect on the natural flow of the river. The system of levees and floodwalls that protect a major portion of the American Bottoms from Mississippi flood waters has also altered the natural flow of the river. Although the 1973 flood at its peak discharged water at a rate of 852,000 cubic feet per second (65 percent of the record flow) it produced a record flood stage of 43.2 feet.

Surface Drainage -

Surface water in the floodplain of the project area generally flows from northeast to southwest after flowing east to west on the bluffs above, as indicated in Figure 8. Palmer Creek is the principal surface drainage water course in the floodplain. From headwaters in the bluffs Palmer Creek and its tributaries drain to the Mississippi past the levee that fronts the Illinois bank of the

river. The tributaries are Hill Creek, Hill Lake Creek, and Fish Lake including its drainage channel. In addition there are three ponds in the area. Two of these are used for field drainage and appear to have no outlet. Other waters in the floodplain are "chutes" of the Mississippi River that run north and south and are situated near the river. These "chutes" essentially contain river water since many are connected to the river.

Palmer Creek leaves the bluff area at a point northwest of Columbia, Illinois directly beneath Illinois Route 3, and one-half mile south of U. S. Bypass Route 50. The creek flows due east approximately three miles where it enters a "chute" which flows south to discharge into the Mississippi River two miles below the existing Jefferson Barracks Bridge.

Hill Lake Creek flows from the bluff under Illinois Route 3, approximately one-half mile north of Bypass 50, and then in a southwesterly direction approximately two and a quarter miles where it combines with Palmer Creek. Hill Creek flows from the bluff under Illinois Route 3, approximately one and three-quarter miles north of Bypass 50, and then southsouthwesterly approximately one and three-quarter miles where it combines with Hill Lake Creek just north of Bypass 50 and one-half mile west of Illinois Route 3. Fish Lake is a long narrow ponding area, 300 feet wide and one and one-half miles long, situated north of Bypass 50 and approximately one mile west of Illinois Route 3. The lake runs from northeast to southwest and has a slight southward flow. The flow from the lake continues to drain southward under Bypass 50 and then in a channel for about one mile where it combines with Hill Lake Creek.

The largest of the three ponds is located one-quarter mile north of Bypass 50 and two miles west of Illinois Route 3. The other two ponds are much smaller and used to receive field drainage. These two ponds straddle an unpaved farm road about one-half mile north of Bypass 50 and one-half mile west of Illinois Route 3.

There are also pockets of casual water in the area west of the levee. This water appears to be the residual from 1974 spring floods. One pond of casual water is located one-quarter mile south of Bypass 50 and just west of the levee. The other body of casual water lies in a shallow depression that is located one-quarter mile north of Bypass 50, and just below the levee.

Although the levee that fronts the east bank of the river is designed to protect the floodplain area from Mississippi flood waters, Palmer Creek and its tributaries are periodically subjected to local flooding when the Mississippi rises above the elevation of the openings in the levee that accept the discharge from these natural drainage facilities. Two drainage districts have been formed to respond to the local flooding that occurs in the floodplain behind the levee when these portals are closed.

Ground Water -

Metropolitan St. Louis, and the larger cities on the Illinois side of the river, obtain their supply of water from the Mississippi River and its tributaries, the Missouri and the Merrimac. On the Missouri side, 97 percent of the water is obtained from the rivers, one percent from bedrock aquifers, and two percent from alluvium. In contrast, a number of towns and several large industries located in the American Bottoms obtain their water from the alluvium and glacial material of the Mississippi River floodplain. The nearest of these users is Dupo, some eight miles to the north of the project area.

Wells that are drilled to bedrock are generally of low yield, less than 50 gallons per minute capacity, and normally contain excessive amounts of dissolved minerals. Consequently, neither the St. Louis nor the Salem formations is used as an aquifer in the project area.

Wells that tap the alluvium of the floodplain could yield much larger quantities of water, frequently in the range of 2000 to 3000 gallons per minute. Water from these wells is usually hard, but normally contains less mineral matter than bedrock wells. The people located in and near the project area obtain their water from the aquifer in this alluvium using relatively shallow wells. Water levels in two wells in the northern part of the project area were reported by the Illinois Water Survey to be 10 and 12 feet below the surface level in 1972.

The water in the alluvium is principally recharged by the downward percolation of rainwater, and to a lesser extent, by the infiltration of water from streams crossing the floodplain. Occasionally, in those areas where heavy pumping of wells takes place, lateral infiltration from the Mississippi River takes place; otherwise, the movement of water in the alluvium normally is toward the river, at a very slow rate. This is the case in the project area, since there are no large capacity wells nearby.

Ecology

The natural habitats found in the project area outside the sections of land that are under cultivation as farms display characteristics that are typical of midwestern rivers and floodplains where floods frequently inundate the area. These habitats are home for the flora and fauna of the terrestrial ecosystems that occupy the floodplain, and the fish and benthos of the aquatic ecosystems that are found in the Mississippi River.

Terrestrial Ecosystems -

The patterns of floodplain flora in the project area are dominated by medium sized Cottonwood trees, and Willows of the Black and Sandbar varieties. Woody vines and herbaceous plants are sparse due in part to frequent periods of flooding. Flooding is also responsible for the proportionally small number of seedlings and saplings observed in the area.

Where trees are found in the section of the project area located east of the levee, the Cottonwood appears to dominate. The Green Ash and American Elm are of lesser importance. The sapling and seedling patterns suggest that the Cottonwood, if allowed to continue its present successional trends, would decrease in importance, and give way to the Silver Maple which would then assume the more dominant role in this section of the floodplain.

The section of the floodplain located between the levee and the river is generally classified as a batture. Here the Cottonwood is again dominant with evidence of an upsurge of Silver Maple. The Sycamore and American Elm are other trees found in the stands of Cottonwoods that occupy the uncultivated sections of this batture. The leaf litter is heavy while the shrubs are sparse which indicates that this area is also often inundated.

Along the existing roadway and on its embankment herbaceous plants and woody vines are small in number in contrast to numerous stands of small diameter "weedy" trees of the Box Elder and Black Willow varieties. Again the Cottonwood is dominant finding little competition from other trees that have difficulty existing in the moist environment.

The Sandbar Willow dominates on the island located in the Mississippi River. However, as the island's floral community continues toward maturity, Cottonwoods will eventually replace the Sandbar Willow and they in turn will be replaced by the Silver Maple. Very few woody vines or herbaceous plants are in evidence, again indicating the impact of periodic flooding in the area.

The faunal community in the area consists of small rodents, e.g. the White Footed Mouse, the Deer Mouse and the House Mouse; somewhat larger animals, e.g. Eastern Cottontail, Woodchuck Beaver, Raccoon and Whitetail Deer; and numerous species of birds. The lack of sufficient ground cover in the section of the area located east of the levee, in contrast to the amount of ground cover located west of the levee, principally above flood stage, accounts for the difference in the size of the small mammal population in these two sections.

The Eastern Cottontail is the larger mammal most frequently found in the project area. Woodchucks are found inhabiting the highway embankment and beavers appear to be finding homes in the streams and ditches that pass thru the area. The raccoon and Whitetail Deer are transients.

The moist habitat of the floodplain provides a good winter feeding ground for a number of birds such as the Tree and Song Sparrows, the Common Crow and the Black-capped Chickadee. Other birds that frequent this type of habitat as winter residents include the Red Tailed Hawk, Morning Dove, Yellow-shafted Flicker, Downy Woodpecker, Blue Jay, Carolina Wren, Starling, Eastern Meadowlark, Cardinal, American Goldfinch, Dark-eyed Junco, and White Crowned Sparrow.

During other seasons of the year Woodpeckers, Warblers and Vireos feed and nest in the timber while Sparrows, Wrens, Blackbirds and Finches use the fallow fields, brushland and marsh areas. Hawks and owls find the area good for hunting. Although not directly observed, the Peregrine Falcon and the Bald Eagle are known to use the area as transients.

Aquatic Ecosystems -

The size of the fish and benthos populations of the aquatic ecosystems found in the Mississippi River indicate that the quality of the habitats located in the immediate area of the existing bridge is rather poor. However, downstream from the bridge the habitats are better able to maintain a diverse community of aquatic life.

Commercial fish are represented by Carp, River Carpsucker, Smallmouth Buffalo, Bigmouth Buffalo and Freshwater Drum; the White Bass is the sole representative of the sport fishery found in the area. The common bottom fauna of the benthic community occupy three major river substrates: mud, sand and gravel. Midges from the family Chironomidae dominate the mud substrate, midges from the family Ceratopogonidae dominate the sand substrate, and caddisflies (genus *potomyia*) dominate the gravel substrate. The diversity of the benthos was greatest in the gravel.

Vistas

The rural farmland character and topography of the area with its high bluffs, broad floodplain and wide river combine to provide numerous opportunities to either view from above at long range, or to personally become at close range a part of the natural setting of the surroundings.

Land Use

These land forms with level floodplains, flood prone areas, and areas subject to internal flooding have tended to restrict urban development in the area. Thus most of the land is used for agriculture (see Figure 9).

The farms that occupy the land between the floodplain levee and Illinois Route 3 are productive despite the effects of seepage from the Mississippi when the river is high. In size they are typical of the farms in Monroe County which average 268 acres. The major crops are soybeans, wheat and corn, and the average yields in Monroe County in bushels per acre are 35 to 45, 40 to 50, and 100 to 120, respectively.

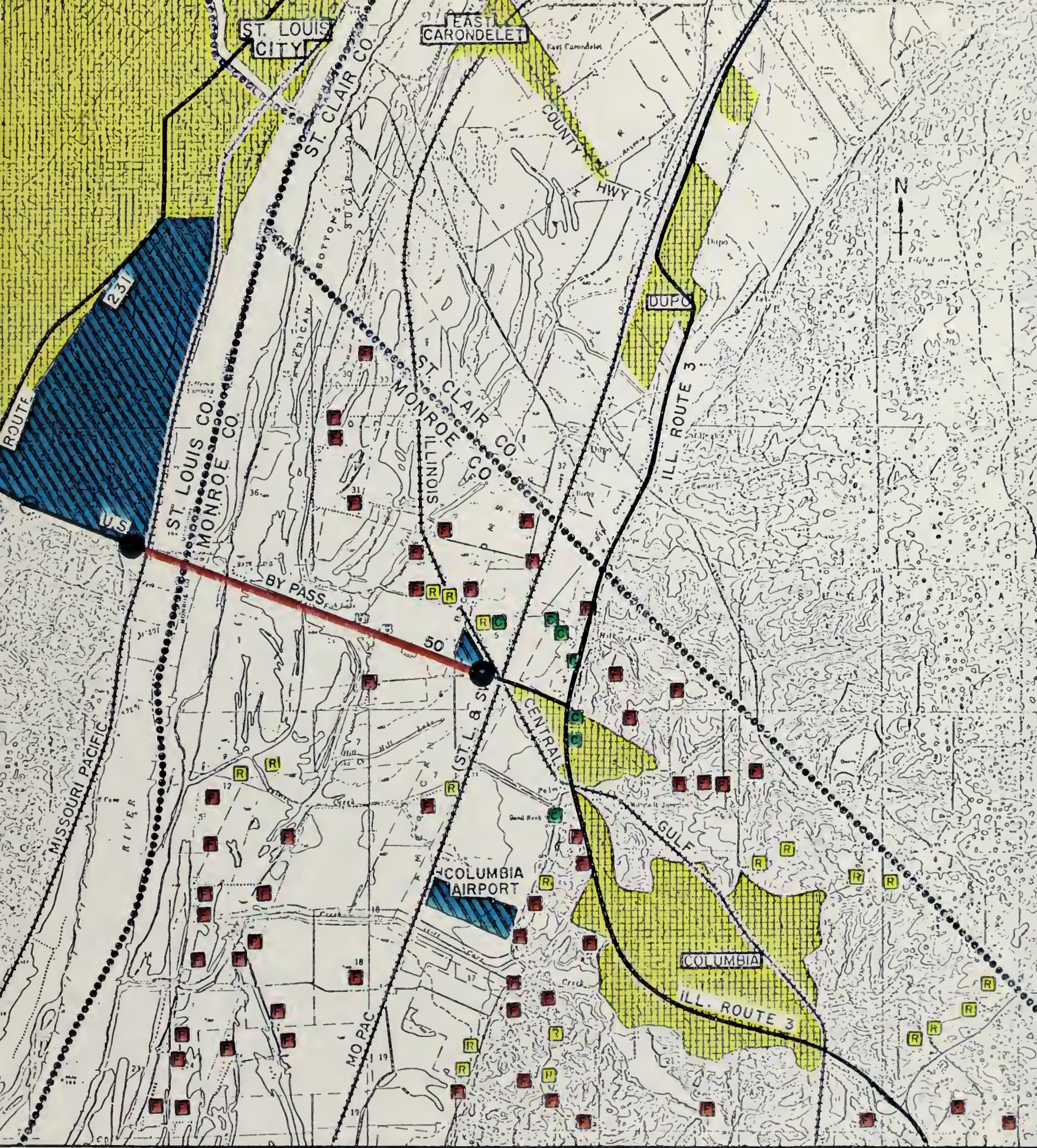
There are about ten farm houses located north of Bypass 50 and below the St Clair County line. Several single family residential units and trailer homes may be found in the same area. In some cases, farm houses are occupied by tenants and the land is rented to another farmer. Bypass 50, however, does not bisect any farms.

The people who live in these dwellings find most of their services in the communities that lie to the north in St. Clair County; or on the bluffs in Columbia. Some conveniences are found in the small commercial development at the intersection of Bypass 50 and Illinois Route 3. The northwest corner of the intersection contains a large gas station, a building which formerly housed a restaurant, and a former motel which serves as a retail beer outlet (sales are particularly heavy on weekends). A produce market is located across Illinois Route 3 to the east; a little to the south of the market is a food store. These roadside businesses were developed before the Monroe County Zoning Ordinance was enacted in 1969.

A small airstrip is located about one-fourth mile north of Bypass 50 and midway between Illinois Route 3 and the levee. It is used by private planes. The owner, who lives in Missouri, conducts a business that includes flying advertising display banners.

Transportation Facilities

The Jefferson Barracks bridge and Bypass 50 link roads and streets in Missouri to Illinois Route 3 and communities in the Metro East area and southern Illinois. In the future it will serve communities in the northeast via Interstate 255, and communities to the southeast, via a connection with F-410, the exact location of which has not yet been determined.



LEGEND

- FARM HOUSE
- RESIDENCE (SINGLE-FAMILY)
- COMMERCIAL BUILDING
- GENERAL URBAN
- INSTITUTIONAL
- LIMITS OF PROJECT
- COUNTY LIMITS

FIGURE 9
 MONROE COUNTY
 AND EVIRONS
 EXISTING LAND USE
 JEFFERSON BARRACKS BRIDGE
 AND APPROACH ROAD
 INTERSTATE 255-67B-EIS

For those traveling from the west, the road provides a gateway to Monroe County and its urban communities of Columbia and Waterloo. It is also an approach from the southwest to the industrial areas located to the north in St. Clair and Madison Counties. The traffic on the bridge is predominantly local, that is intraregional, but some long distance trips from Illinois to Missouri and beyond make use of this link.

Trackage of two railroads penetrate the area intersecting each other as they cross U. S. 50 approximately 1,000 feet west of the Illinois Route 3 intersection. One set consists of two main tracks of the Chester Sub-division of the Missouri Pacific Railroad Company. The tracks are used jointly with the St. Louis Southwestern Railway under terms of a joint track agreement. The other set of tracks is owned by the Illinois Central Gulf Railroad providing service to and from the southeast. The Missouri Pacific Railroad Company also operates the line located just below the bluffs on the west bank in Missouri.

The Mississippi River Transmission Company operates five natural gas transmission pipelines that cross under the highway in the floodplain (1 east and 4 west of the levee). The Union Electric Company maintains two electric power lines that cross above the highway. Other utilities operating in the area include the Rural Electrification Association (REA), Illinois Power and Harrisonville Telephone Co.

Non-scheduled commercial flights and private planes operate out of Columbia Airport which can be reached from Bypass 50 via Illinois Route 3 and Monroe County Highway 6, a north-south road that follows the bluff line along the western limits of Columbia. County Highway 6 is maintained by Road District No. 5 as are six other local roads that serve the area which are identified as Township Roads (TR) in Figure 10. The Bi State Transit System operates a regional service to Waterloo via Illinois Route 3.

Public Institutions

The project area is in the Columbia Community Unit District No. 4. The school district maintains elementary and high school grades. Children from the area, north to the St. Clair County line, are transported by bus to schools in Columbia. Two buses are used to transport a current total of 72 children from the area in Monroe County that lies north of Bypass 50 and west of Illinois Route 3.

The Columbia Rural Fire District provides protection in case of fire. The District has one of its two engines assigned to cover the area located within the Columbia municipal limits; the other vehicle is assigned to the unincorporated rural sections of the District. The District also has one ambulance and one emergency vehicle located at its facility in Columbia. Police protection is provided by the Monroe County Sheriff's office in Waterloo.

There are two agencies in the area that were created to deal with flood control and storm drainage in the floodplain. The Prairie Du Pont Levee and Sanitary District serves the area north of U.S. 50 to the Cahokia Chute at East Carondelet. It is responsible for 9,560 acres of floodplain behind 10.3 miles of levee. The Fish Lake Drainage and Levee District serves the area south of Bypass 50 to Carr Creek. It is responsible for 2,440 acres of floodplain behind 4.9 miles of levee.

Archeological and Historical Sites

The American Bottoms, located in Madison, St. Clair and Monroe Counties, and its adjacent bluff is one of the most significant archeological regions in North America. Two sites are listed in the National Register of Historic Places. They are the Cahokia Mounds National Historic Landmark and the Lundsford-Pulcher Archeological Site. The former is located approximately 20 miles north of the project area, while the latter is about 3/4 mile away, and is shown on Figure 11.

A staff of professional archeologists, under the supervision of the Illinois Archeological Survey, have identified the archeological resources (both historic and prehistoric) located within or near the proposed right-of-way for I-255. The survey techniques used were pedestrian survey, controlled surface collection, shovel test, phosphate test, and magnetometer survey (one site only). These techniques produced as much information about the sites as is possible during the reconnaissance phase. An assessment of these techniques is contained in "A Preliminary Assessment of Techniques Applied in the I-255 Survey" by Kenneth R. Williams. (*)

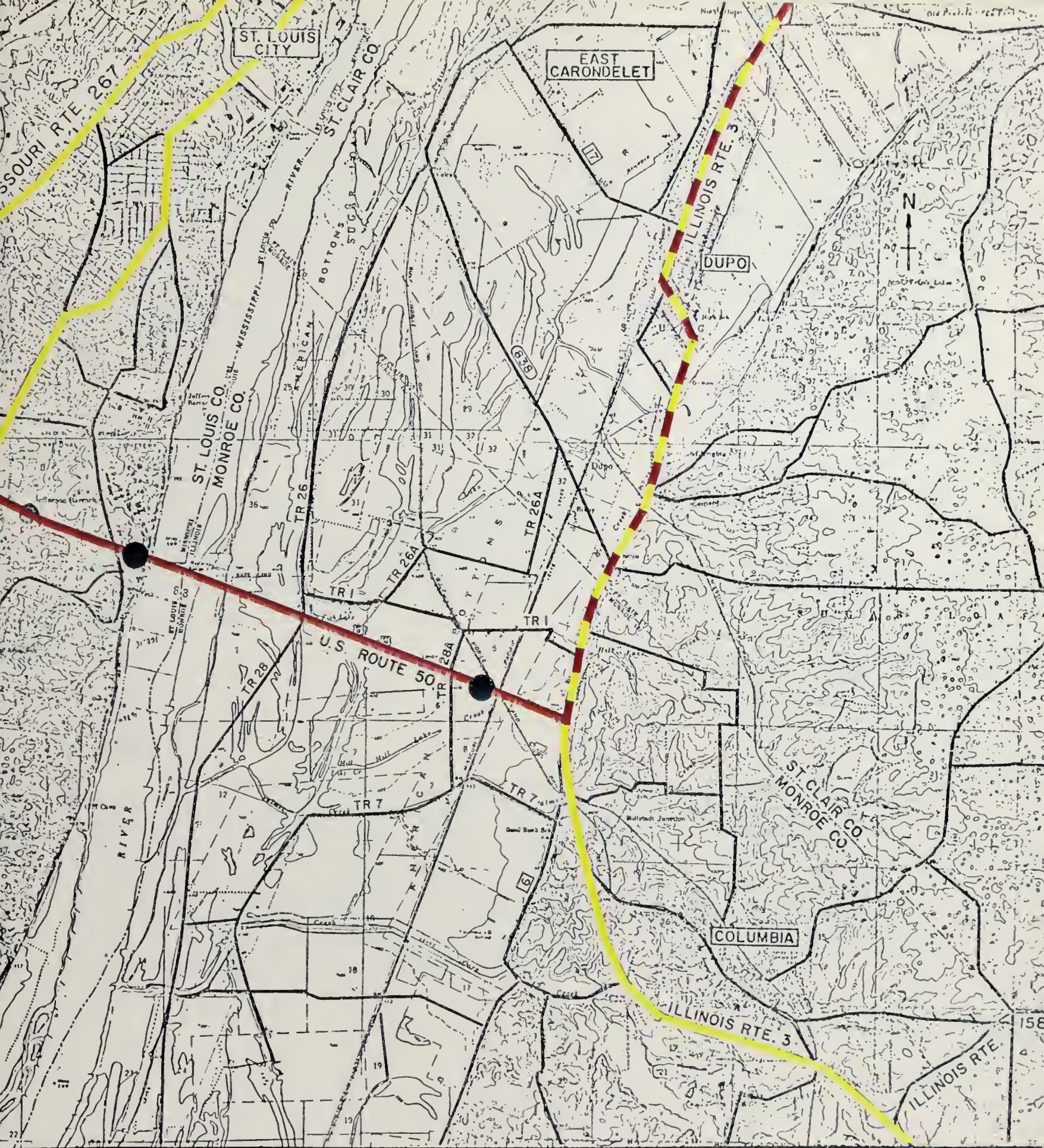
These investigations have resulted in the identification of approximately 100 archeological sites, seven of which are located either partially or wholly within the proposed right-of-way of this project.

Other documents developed during the archeological reconnaissance are:

An Overview of Archeological Investigations - FAI Route 255 (from Jefferson Barracks Bridge Crossing of the Mississippi River to the Interchange with FAI Route 55, west of Collinsville) Monroe, St. Clair and Madison Counties - April, 1976(*)

Requests for Determination of Eligibility for Inclusion in the National Register of Historic Places - Sixty-nine Archeological Sites - Proposed FAI Route 255; Monroe, St. Clair and Madison Counties - June 1976(*)

* Available on a need-to-know basis from the District Engineer, Illinois Department of Transportation, 9300 St. Clair Avenue, Fairview Heights, Illinois 62208.



LEGEND

- LIMITS OF PROJECT
- U.S. ROUTE 50
- ILL. RTE. 3 AND U.S. RTE. 50
- ILL. AND MO. STATE ROUTES
- (FAS) FEDERAL AID SECONDARY
- (CH) COUNTY HIGHWAY
- TR TOWNSHIP ROAD
- OTHER LOCAL ROADS

FIGURE 10

LOCAL ROADS

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

Based on the review of these documents, the U.S. Department of the Interior, National Park Service, Office of Archeology and Historic Preservation, determined that the 69 sites, either singly or collectively, were eligible for inclusion in the National Register of Historic Places (41 CFR 212). These sites were grouped into three districts and are identified as the "Jefferson Barracks Bridge Road Archeological District," the "American Bottoms Archeological District," and the "Pleasant Ridge Road Archeological District." The boundaries of these Districts are shown on pages A-9 through A-15 of Appendix A.

This project is located entirely within the Jefferson Barracks Bridge Road Archeological District. Additional information is included in Chapter IV and in Appendix A.

There are a number of recognized historic landmarks located in the general project vicinity, but none are affected by the project. Coordination with the Monroe County Historical Society, and the State Historic Preservation Officer supplemented the lists in the National Register and the Illinois Historic Sites Survey in compiling an inventory, shown on Figure 11, and listed in Tables 2 and 3.

Zoning

Much of the Monroe County and specifically the immediate area north and south of Bypass 50 including the commercial area at the intersection of Illinois Route 3 is zoned for agricultural use in the County Zoning Ordinance. As indicated in Figure 12, several sections in the floodplain and in the bluffs outside the municipal limits of Columbia are floodplain districts (zoned F-1). There are also a few pockets of land located north and south of the Columbia city limits that are zoned for single family residential use (R-3, 100 foot frontage, and R-4, 80 foot frontage).

TABLE 2

HISTORIC LANDMARKS AND STRUCTURES IN COLUMBIA, ILLINOIS

Environmental Impact Statement
Jefferson Barracks Bridge and Approach Road
I-255-67B-EIS

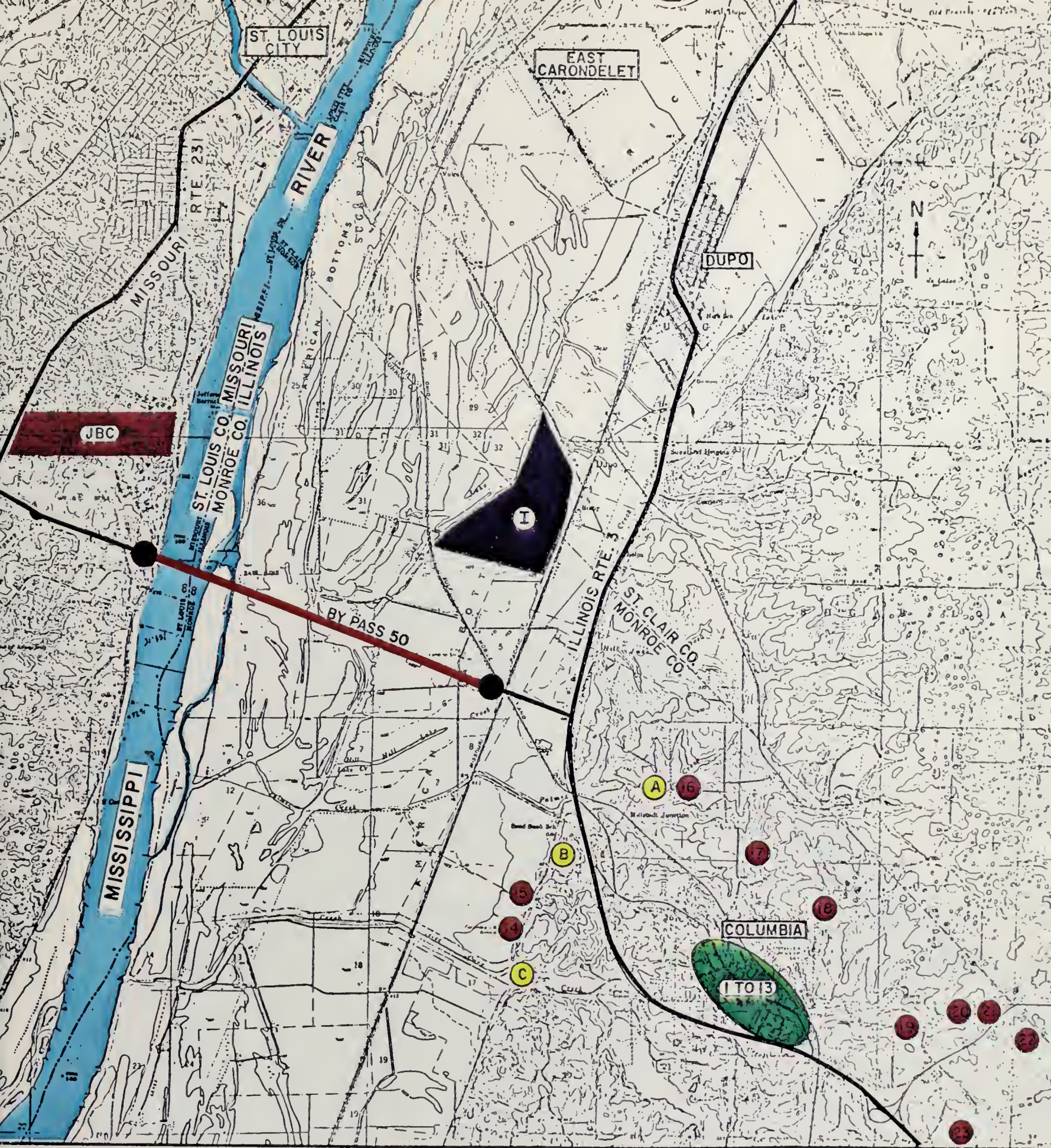
HISTORIC LANDMARKS:

Index	Description	Address	Date	Comments
MO-H-1	Former R. P. Briegel Home	620 N. Metter	1854	Built from bricks from brickyard on property.
MO-H-2	Nolan House	508 South Main	1810	Early pioneer log cabin expanded and covered.
MO-H-3	Old Distillery	Main & Gunlac		One of many spirit manufacturers in area.
MO-H-4	Volkert Building - Wenkel Saloon	125 N. Rapp	1856	Patronized by early German mill workers.
MO-H-5	Volkert Print Shop	121 S. Main		Home of early newspaper.
MO-H-6	Joseph Schuler Home	515 S. Main		
MO-H-7	Nicholaus Wilde Home	517 S. Main		
MO-H-8	Philip Schmidt Home & Beer Cellar	521 S. Main & S. Main		Beer was brewed in the home and stored in the cellar.
MO-H-9	Frieda Gasser Home	939 S. Main	1860	Native limestone.
MO-H-10	Fiege House	140 S. Main		
MO-H-11	Charles Schneider Home	124 S. Main		
MO-H-12	Divers Home	231 N. St. Paul	1857	Only remaining early American colonial home in Columbia.
MO-H-13	Heritage-Lowell Andrew Home	625 N. Main	1857	Built by Gundlach Bros., local brewers.

HISTORIC STRUCTURES:

Index	Description	Address	Index	Description	Address
W-672/19	Residence	204 Jefferson	W-671/33	Residence	603 S. Main St.
W-672/11	Residence	625 N. Main St.	W-671/32	Residence	939 S. Main St.
W-672/9	Commercial	235 N. Main St.	W-669/33	Commercial	S.cor. Rapp & Locust
W-672/3	Residence	305 S. Main St.	W-669/35	Residence	231 St. Paul
W-670/6	Church (St. Mary's)	326 S. Main St.	W-669/34	Tomb (Dr. Rose)	St. Paul Cemetery W.end St. Paul St.

NOTE: MO-H-9; 12 and 13 are also Historic Structures.



LEGEND

- LIMITS OF PROJECT
- MONROE COUNTY HISTORICAL SOCIETY
 - (A) PALMIER CEMETERY
 - (B) SIDE WHEELER
 - (C) PIGGOTT'S FORT
- NATIONAL REGISTER
 - (JBC) JEFFERSON BARRACKS CEMETERY
 - (I) LUNSFORD-PULCHER SITE
- ILLINOIS HISTORIC LANDMARKS SURVEY
 - (1-13) SEE TABLE 3
 - (14-23) SEE TABLE 4 FOR LISTING

FIGURE 11

HISTORIC LANDMARKS
AND ARCHEOLOGICAL SITES

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS



LEGEND

- | | | |
|--|-------------------|----------|
| | AGRICULTURAL | A-1 |
| | RESIDENTIAL | R-3, R-4 |
| | INDUSTRIAL | I-1 |
| | FLOOD PLAIN | F-1 |
| | CITY OF COLUMBIA | |
| | INSTITUTIONAL | |
| | LIMITS OF PROJECT | |
| | COUNTY LIMITS | |

FIGURE 12

MONROE COUNTY AND
ENVIRONS ZONING

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-678-EIS

TABLE 3
HISTORIC LANDMARKS AND STRUCTURES NEAR COLUMBIA, ILLINOIS
Environmental Impact Statement
Jefferson Barracks Bridge and Approach Road
I-255-67B-EIS

<u>Index</u>	<u>Description</u>	<u>Address</u>	<u>Comments</u>
MO-H-14	Early stone barn	Survey 554, ROW, T1S	
MO-H-15	Brick farm; Barn & house	NE¼, Sec. 1", ROW, T1S	
MO-H-16	Henry Payne Home	SE¼, Sec. 9 ROW, T1S 1818	Uncovered log house still in use
MO-H-17	Rock Bridge	Rueck Rd. N of Columbia	An example of the many rock bridges in Monroe County
MO-H-18	Lepp Farm House	Rueck Rd. just N of Columbia	
MO-H-19	Platz Farm*	Centreville Rd. near Rt. 158 1850	House, barn, and outbuildings made of stone
MO-H-20	Miller Farm	Centreville Rd.	Log house, stone wine cellar- smokehouse and stone foundation on barn
MO-H-21	Log Corn Crib with Tombstone foundation	Centreville Rd. ¼ mi N of Rt. 158	
MO-H-22	Stonewood Farm and Residence*	Rt. 158 & County Line	House & lower ½ of barn are stone
MO-H-23	Seller's Stone Barn	NE¼, 26, 10W, 1S	

The City of Columbia uses Bypass 50 in Illinois for a portion of its northern municipal limits. The center of town is located south on Illinois Route 3 approximately 5 miles. There are two towns nearby in St. Clair County to the north. Dupou, the largest of the two, is on Illinois Route 3; the other, East Carondelet, is northwest from Dupou on St. Clair County Highway 17. These three communities contain all the urban development in the area and control its zoning. Most of the industrial zoning in the immediate area is located in or near Dupou.

Bypass 50 and the Jefferson Barracks Bridge also serve the unincorporated areas located in south St. Louis County where zoning is the responsibility of the county government. The southern limit of the City of St. Louis is 5 miles to the north on either Interstate 55 or Telegraph Road.

Property Values and Taxes

Property in Monroe County is assessed in five categories, i.e. lands, lots, improvements, personal property and railroad property. The property in the "lands" category includes large farms, small tracts, and home or building sites of 5 acres or less. The assessed valuation of these classifications varies on a graduated per acre basis depending upon the natural conditions of the land. as follows:

1973 Farm Land Assessed Valuation

<u>Prime</u> ¹	<u>Marginal</u> ²	<u>Waste</u>
\$175/acre	\$90/acre	\$20/acre

1 - East of Mississippi River Levee, wet conditions debase this rate 20 percent.

2 - West of Mississippi River Levee.

Taxes on land in the project area in 1973 were \$5.48 per \$100 assessed valuation for property within the Prairie Du Pont Levee and Sanitary District (PDPLSD); 59 cents was returned to PDPLSD. Thus taxes on land outside the PDPLSD were \$4.89 per \$100 assessed valuation which was distributed as follows:

<u>Unit</u>	<u>Dollars Per \$100 Assessed Valuation</u>
County General Fund	0.66
Unit District No. 4 (schools)	3.34
Road District No. 5	0.54
Fire Protection District	0.16
Other	<u>0.19</u>
Total	4.89

The relationship between market value and assessed valuation had earlier put the cost of open agricultural land at approximately \$1,100 per acre. However, the inflationary pressures that developed between 1973 and 1974 have increased the cost approximately 20 percent to \$1,300. Consequently, the value in 1974 dollars of an average size farm (270 acres) could range upward from \$350,000.

Demographic Characteristics

Monroe County in 1970 had a population of 18,831; the current (1974) estimate places it close to 21,000. The people in Monroe County in 1970 had formed 4,960 families, and like St. Clair County, its neighbor, Monroe County had an average person per household ratio of 3.2 which was the average for the St. Louis region. These ratios compare with other areas as follows:

<u>Location</u>	<u>Persons per Household</u>
<u>Missouri</u>	
Jefferson County	3.5
St. Louis County	3.3
City of St. Louis	2.8
<u>Illinois</u>	
City of Columbia	3.6
City of Dupo	3.4

The larger ratios of 3.4 and 3.6 in Dupo and Columbia indicate that the family size in the project area is above average.

There were no black or other minority families living in Monroe County in 1970 and supposedly none reside in the project area. However, the age of those who owned and operated farms in the area was above average and several families included people who could be considered elderly.

Most of the people living in the project area are likely to be long-time residents as indicated below:

<u>Unit</u>	<u>Lived in Same County for 5 Yrs.</u>	<u>Lived in Same House for 5 Yrs.</u>
Columbia	82%	68%
Dupo	85%	57%

The contrast in the rural and urban character of Monroe County (53 percent rural) and St. Clair County (83 percent urban) is best represented in the following:

<u>County</u>	<u>Percent Rural</u>	<u>Percent of Self-Employed Engaged in Farming</u>	<u>Average Annual¹ Family Income in Dollars</u>
Monroe	53	16.9	9,915
St. Clair	17	2.9	10,862

1 - Does not include average annual income of those on public assistance.

In the two Monroe County communities of Columbia and Waterloo which account for 100 percent of the County's urban population, the average annual family income reflects the higher ratio of the labor force engaged in professional activity outside farming as follows:

<u>City</u>	<u>Average Annual Family Income in Dollars</u>	<u>Percent Families With Incomes Over \$15,000</u>	<u>Percent Employed White Collar PTTMA¹</u>
Columbia	10,567	16	17.7
Waterloo	10,230	16	24.5

1 - Professional, Technical, Teaching, Managerial, Administrative.

In contrast only 13 percent of the employed living in Dupon in St. Clair County reported that they were engaged in professional and related activities in 1970.

Commuting Patterns

Approximately 6,870 people in the Monroe County labor force were gainfully employed in 1970. The unemployment rate in the county at that time was below the national average with 195 listed as unemployed. This supply of labor was not only able to fill a major share of the jobs that were available in Monroe County in 1970, 84.5 percent, it significantly contributed to the labor requirements of other sections of the St. Louis region, and in consequence exported a large share of its labor force (52.5 percent) as indicated below:

	EMPLOYED (in)				
	Monroe County		Other Places (in)		
<u>LABOR FORCE (from)</u>	<u>No.</u>	<u>Percent</u>	<u>Illinois</u>	<u>Missouri</u>	<u>TOTAL</u>
Monroe County	3260	84.5	1510	2100	6870
Other Places (in)					
Illinois	530	13.7	-	-	-
Missouri	70	1.8	-	-	-
Total	3860	100.0			

Nearly 27 percent (over 1800 people) of the employed persons from Monroe County work in the city of St. Louis or St. Louis County and most of them would appear to depend on the Jefferson Barracks bridge for access.

Community Cohesion

Homes in the floodplain area that surrounds Bypass 50, are generally scattered and there is little to indicate that there is an established community structure, a sense of local identity, or social cohesion. Residents must travel to Columbia or elsewhere for religious services. Also there are no hospitals in Monroe County. Residents make use of hospitals in Belleville, Red Bud, Centreville, and the St. Louis area. Except for city parks and a proposed 550 acre state conservation area on the bluff in the southern part of the county, there are no public recreational lands in the area.

Air, Noise and Water Quality

The quality of the air in the project area currently meets federally established standards. Based on factors that reflect the worst probable wind conditions and stability (south is the prevailing wind direction) and associated traffic density, vehicle generated pollutants currently create carbon monoxide (CO) concentrations that reach levels of 7.5 parts per million (ppm) for the maximum 1-hour period and 2.8 ppm for the hourly average of the maximum 8-hour period. This compares with federal standards set at maximum concentrations of 35.0 ppm for the 1-hour period and 9.0 ppm for the maximum 8-hour average (See Table on Page IV-1a).

The noise level along Bypass 50 as it affects nearby receptors is also within established federal standards. Two buildings located on land that has a minimum L_{10} noise level standard of 70 decibels are currently susceptible to noise having L_{10} levels of 55dbA and 66dbA respectively. Three other buildings on land having a minimum of L_{10} noise level standard of 75 decibels are susceptible to noise having L_{10} levels that range from 60dbA to 70dbA. These ambient noise levels are compared with estimated future levels in Chapter IV (See Table 4).

The water in the Mississippi River is high in disease bearing organisms, silver and iron, which prevent it from meeting State of Illinois General Use and Public Supply Standards. Information on hand at the U. S. Corps of Engineers and the Illinois Environmental Protection Agency (IEPA) indicates that the water flowing in the Mississippi fails to meet these standards for fecal coliform, temperature, dissolved oxygen, ammonia, nitrogen, iron and silver.

Surface waters on the bluffs in the Palmer Creek tributaries are high in disease-bearing organisms and reflect the consequences of drainage from septic fields and similar sanitary wastes. The water in these streams fails to meet Illinois standards for fecal coliform, dissolved solids, chloride, and iron. In the American Bottoms the level of pollution in these waters indicates that solids are leaching into the streams from the agricultural land they drain. However, these waters appear to sufficiently improve to meet Illinois General Use Standards at the point where they discharge to the Mississippi River "chute".

Ground water supplied by wells in the area failed to meet Illinois standards for dissolved solids, oils and grease, phosphate, nitrate and nitrite, and phenol. Standing water in the study area failed to meet Illinois standards for fecal coliform, phosphate, dissolved solids, pH, iron, ammonia nitrogen, lead, and zinc. The fecal coliform count reflects the varied wildlife forms that inhabit the area located around standing waters. The high levels of phosphorus and nitrogen may be attributed to the fertilizer used on agricultural land, while the concentration of heavy metals could reflect local soil conditions.

CHAPTER II

LAND USE PLANNING

Areas in the immediate environs of the proposed action that have the greatest potential for urban development are generally found on the bluffs, according to a recent report prepared by the Southwestern Illinois Metropolitan and Regional Planning Commission (SIMRPC). The bluffs are popular for residential development due to their physical configuration and proximity to the social and cultural services offered in an urban community like Columbia. The transportation facilities that link the bluff area with the metropolitan employment centers of St. Louis also make their contribution by acting to influence the direction this development is likely to take (see Figure 13).

Areas of moderate potential for development are found at the base of the bluffs around outlying smaller communities, e.g. Dupon and East Carondelet. Since these areas are on the doorstep of the floodplain, they are expected to experience less intensive growth and development. Most of the remaining portions of the area around the project (generally rural at present) are expected to receive little in the way of new urban development due to similar physical constraints and changing attitudes towards continued sprawl.

As noted earlier, the greatest concentration of available industrial land lies in an area extending roughly from Dupon northward thru Cahokia to East St. Louis, generally in a band paralleling the Mississippi River. It is in this area that the greatest potential for industrial growth is expected to occur. Proximity to St. Louis and the availability of good transportation are major contributing factors.

These expectations for growth are embodied in the 1995 Regional Land Use Plan adopted by the East-West Gateway Coordinating Council (EWGCC), the regional planning agency for the St. Louis Metropolitan Area (see Figure 14).

It is also likely that Monroe County will continue to possess the labor force that not only is able to accommodate its own needs but also provide Missouri and other Illinois industries with a number of workers. In addition to responding to the overall increases in total population, the labor force is also expected to increase due to a change in the rate of participation. In 1970, the labor force participation ratio was 37.5 percent which meant that 37.5 percent of the total population was actively seeking employment and, thus, in the labor force. Because of the increasing number of females entering the labor force (as indicated by the 1970 Federal census) which has been partially precipitated by the expected growth of service-type jobs, the participation ratio is expected to increase to 39.5 percent or higher in the near future.

FUTURE LAND USE

These factors are expected to have a major influence on the way land in the project area will be used in the future (see Figure 15). A brief review follows:

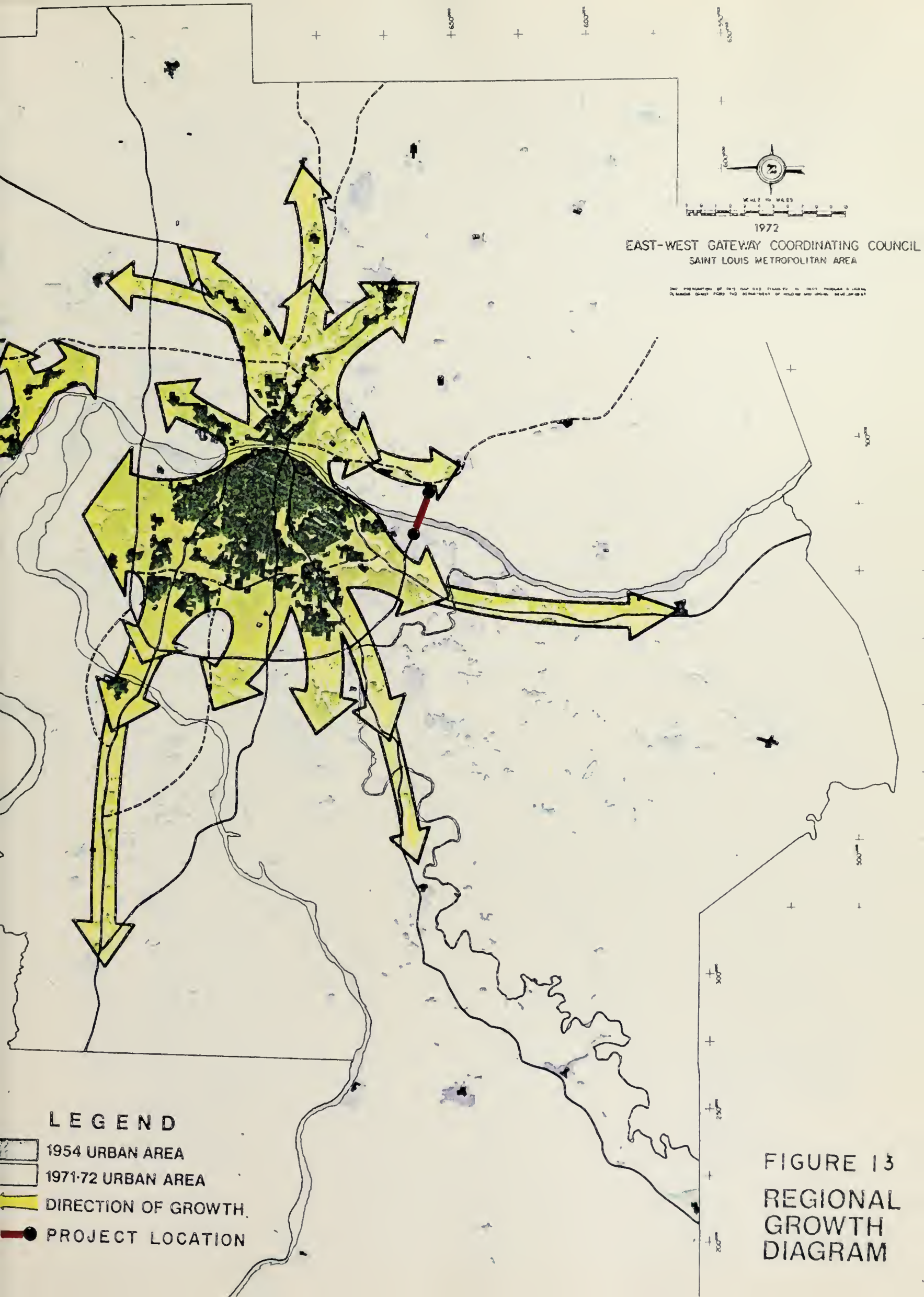
General Urban

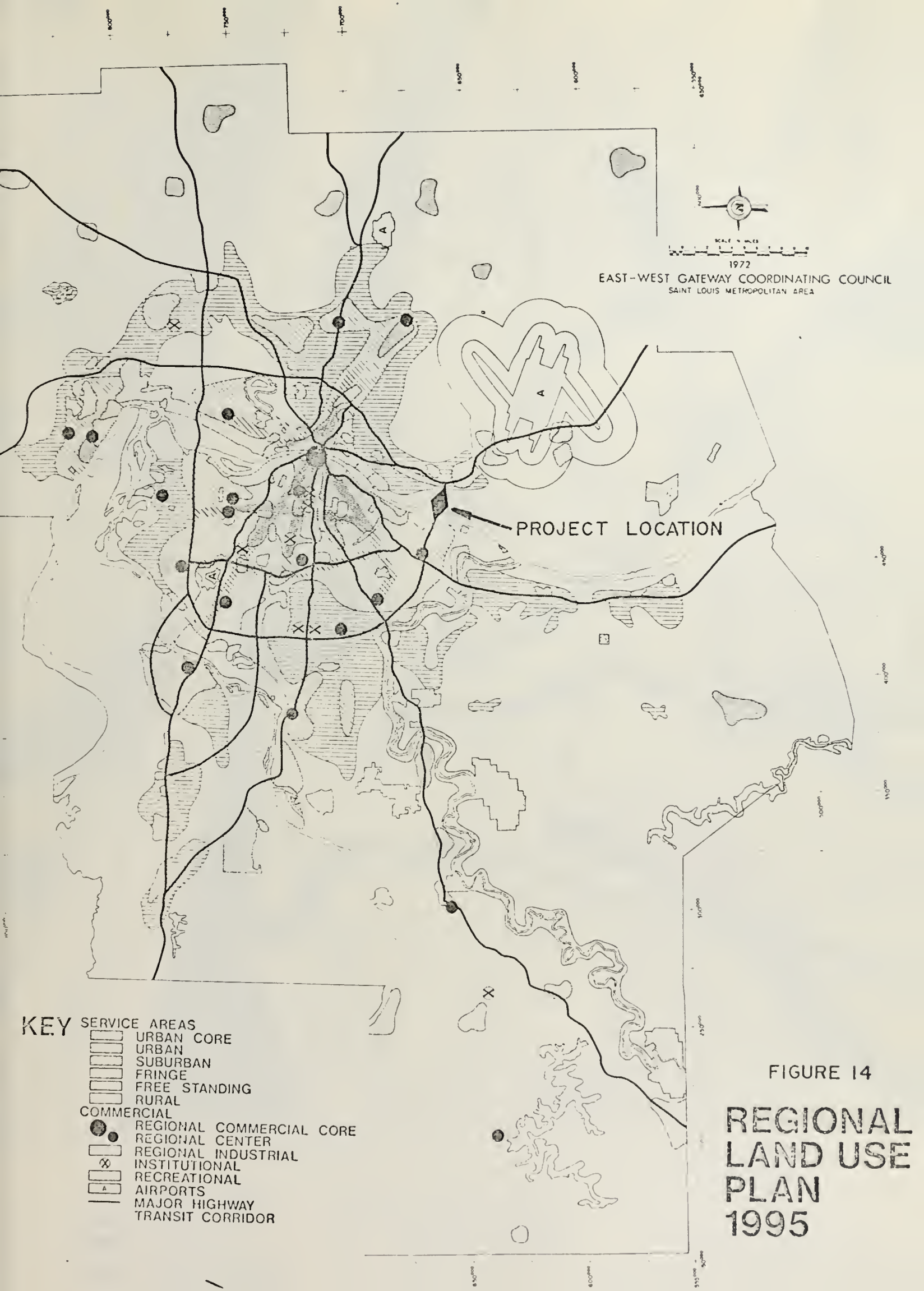
The growth in general urban land will be the dominant feature in the area during the next 20 to 25 years and it will set the overall pattern of development. According to SIMRPC, future general urban development in Monroe County is expected to focus on suitable vacant areas within and immediately adjacent to existing urbanized areas (Columbia, Waterloo, etc.) and develop at densities that range from 4 to 8 persons per gross acre. This suggests that growth in urban centers in Monroe County will attract approximately 20,000 new residents which represents practically 100 percent of the growth expected during the forecast period. One effort to accommodate this anticipated growth is a Planned Unit Development called Chapel Spring, located south and west of Columbia approximately 5 miles.

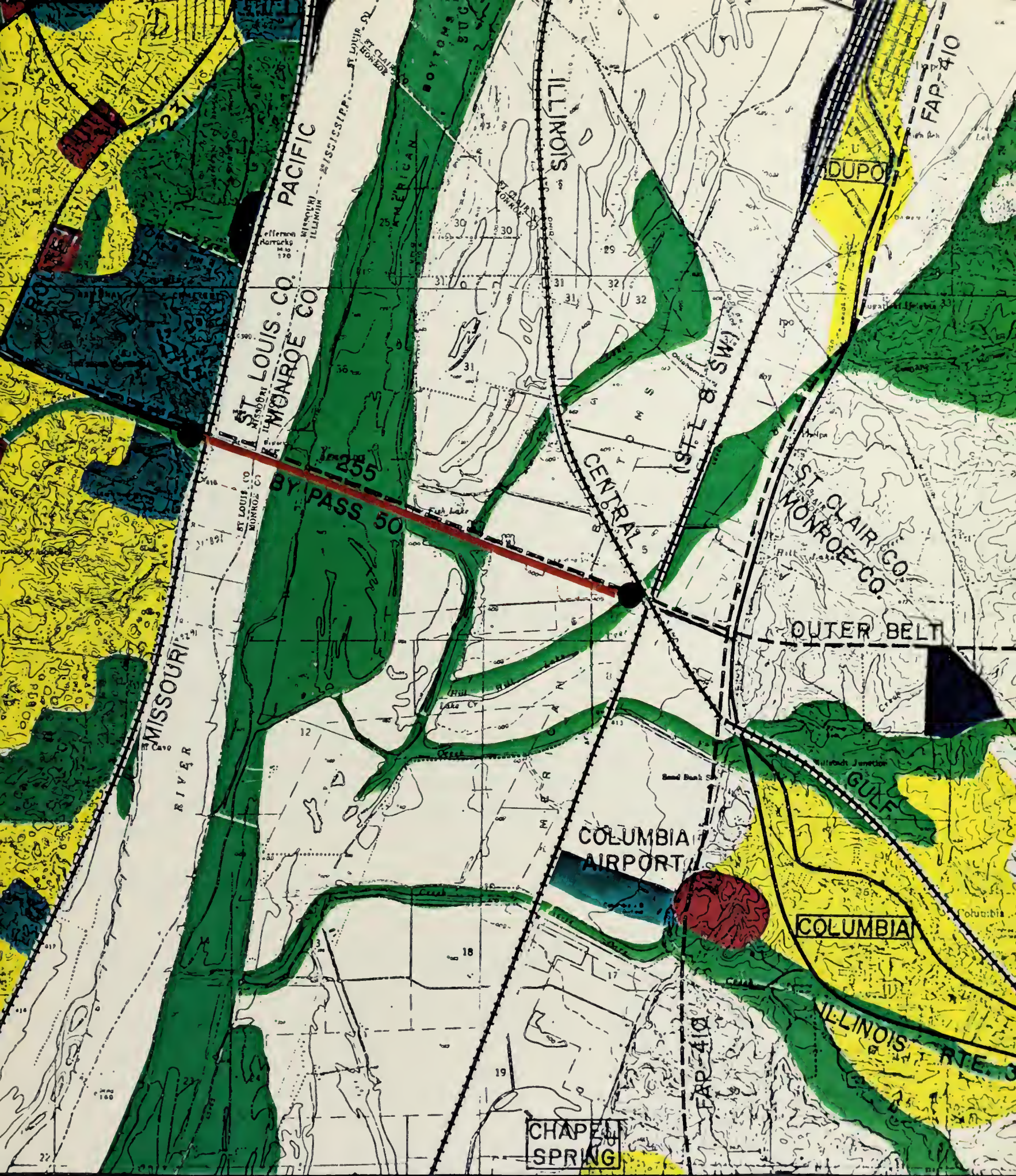
The Chapel Spring plan calls for a variety of residential and commercial uses, with appropriate recreational areas, and some 16,000 residents, who would constitute a large share of the increase in population forecast thru 1995. The forecasts and future projections of population prepared by the regional planning agencies also take this into account. The Chapel Spring plan has been approved by the Monroe County Commissioners, an action which recognizes that the northwestern section of the county is adjusting from its predominantly agricultural base to a more suburban settlement with attendant patterns and orientation, in response to recent trends and the proximity of the area to the large concentration of population in Missouri (Chapel Spring is 16 miles from downtown St. Louis). Although the timing is yet uncertain, the anticipated implementation of this planned unit development seems to be well established in the thinking of leading Monroe County citizens.

Commercial

Future commercial centers will be easily accessible to residents of the surrounding area with the addition of major facilities at West Park Center in Columbia and in the planned urban development at Chapel Spring. Other new commercial activities are expected to continue to locate near existing commercial developments.







LEGEND













- | | | | |
|---|---|---|----------------------|
|  | GENERAL URBAN |  | MAJOR TRANSPORTATION |
|  | COMMERCIAL |  | EXISTING FREEWAY |
|  | INDUSTRIAL |  | PROPOSED FREEWAY |
|  | CONSERVATION / RECREATION |  | MAJOR ARTERIALS |
|  | INSTITUTIONS |  | RAILROADS |
|  | LAND PRESERVATION (VACANT / AGRICULTURAL) |  | LIMITS OF PROJECT |

FIGURE 15

FUTURE LAND USE

JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-673-EIS

Industrial/Institutional

The amount of land designated for industrial use is not directly related to the increased demands of the local economy's manufacturing sector - although such increases are anticipated. Rather, land is set aside for future industrial use in areas that are better suited for industrial use because of their site characteristics and locational advantages. The industrial areas in Illinois shown in Figure 15 have been suggested by Southwestern Illinois Metropolitan and Regional Planning Commission. The development of a business and industrial park at the airport has also been proposed.

Conservation/Recreation Areas

Several sections of the area have been designated for either conservation or recreational use by SIMRPC. These sections are generally not well suited for intensive suburban development because of steep slopes, drainage problems or other physical constraints. The Illinois Department of Conservation and its natural resource programs as they affect the area are not in conflict with the proposed action according to their letter dated December 15, 1975 (see Appendix D).

Land Preservation

The largest sections of the area have been reserved for agricultural use or flood control, thus reflecting the change in attitudes towards the control of urban development in an area that is otherwise well suited for agricultural pursuit but in need of close control over potentially damaging floods.

Transportation Facilities

The expectations for future land use, shown on a regional scale in Figure 14 and a local scale in Figure 15, are based upon the assumption that several transportation improvements will be completed in the region during the next 25 years; the proposed action is one of them. These improvements are contained in the St. Louis Area Road Plan (see Figure 16) and long range improvement program (the Outer Belt highway is included in the long range program but is yet under study). The proposed action is also included in the region's adopted Short Range 5-year Transportation Improvement Program (see Figure 17, Index No. 15). When completed the new bridge and Interstate belt highway will improve access by providing a safer and more efficient facility for the movement of traffic between the road network in Illinois and the network of roads in Missouri. Thus the congestion that would be experienced on the low capacity arterial that now handles the traffic (see Figure 18) would be eliminated (see Figure 19) and the number of accidents reduced.

PROJECT COMPATIBILITY

The planning process in the St. Louis region is administered by the East-West Gateway Coordinating Council in cooperation with various local agencies including SIMRPC. . The Council works in conjunction with the Federal Highway Administration (FHWA) and the Urban Mass Transportation Administration (UMTA) of the U.S. Department of Transportation (DOT), the Illinois Department of Transportation (IDOT), and the State Highway Commission of Missouri to fulfill the requirements of the 3C (transportation planning) process. Members on the Council represent the major central cities, four counties in Missouri (Franklin, Jefferson, St. Charles and St. Louis), and the Southwestern Illinois Metropolitan and Regional Planning Commission, which also represents the three Illinois counties in local planning matters. The Federal Railroad Administration, the Federal Aviation Administration and the U. S. Maritime Administration have been included when the mode they administer to has been involved in the planning process.

Other related planning functions such as land use, housing, water supply, recreation and open space, and community development are administered by the Council in conjunction with the Federal Department of Housing and Urban Development (HUD). The U. S. Environmental Protection Agency also participates in regional programs that are undertaken to address the functional areas of solid waste collection and disposal, and water quality, in terms of wastewater and storm drainage collection and disposal. The U. S. Department of Agriculture is involved with the Council in activities associated with programs that attend to the needs of the rural sections of the region. The U. S. Economic Development Administration is currently reviewing a request to designate the Missouri portion of this region eligible for EDA funds.

The Council also functions as the regional clearinghouse in the St. Louis Metropolitan Area. It reviews the applications for federal funding assistance for projects that are covered in the Federal Office of Management and Budget (OMB) Circular A-95. Accordingly, the review function and the Council's continued maintenance of its planning programs and regional plans keep the St. Louis area eligible for the federal funds that are available under these federal grant in aid programs.

Regional Transportation Planning

Goals and objectives for the region's transportation system are developed and adopted by the principal regional jurisdictions in the body of the East-West Gateway Coordinating Council. These statements of purpose are designed to provide the region with guidance in the preparation, review, and update of plans, proposals and projects for transportation improvements. They are periodically reviewed and updated to reflect changing needs and priorities and used on a continuing basis to evaluate improvement proposals.

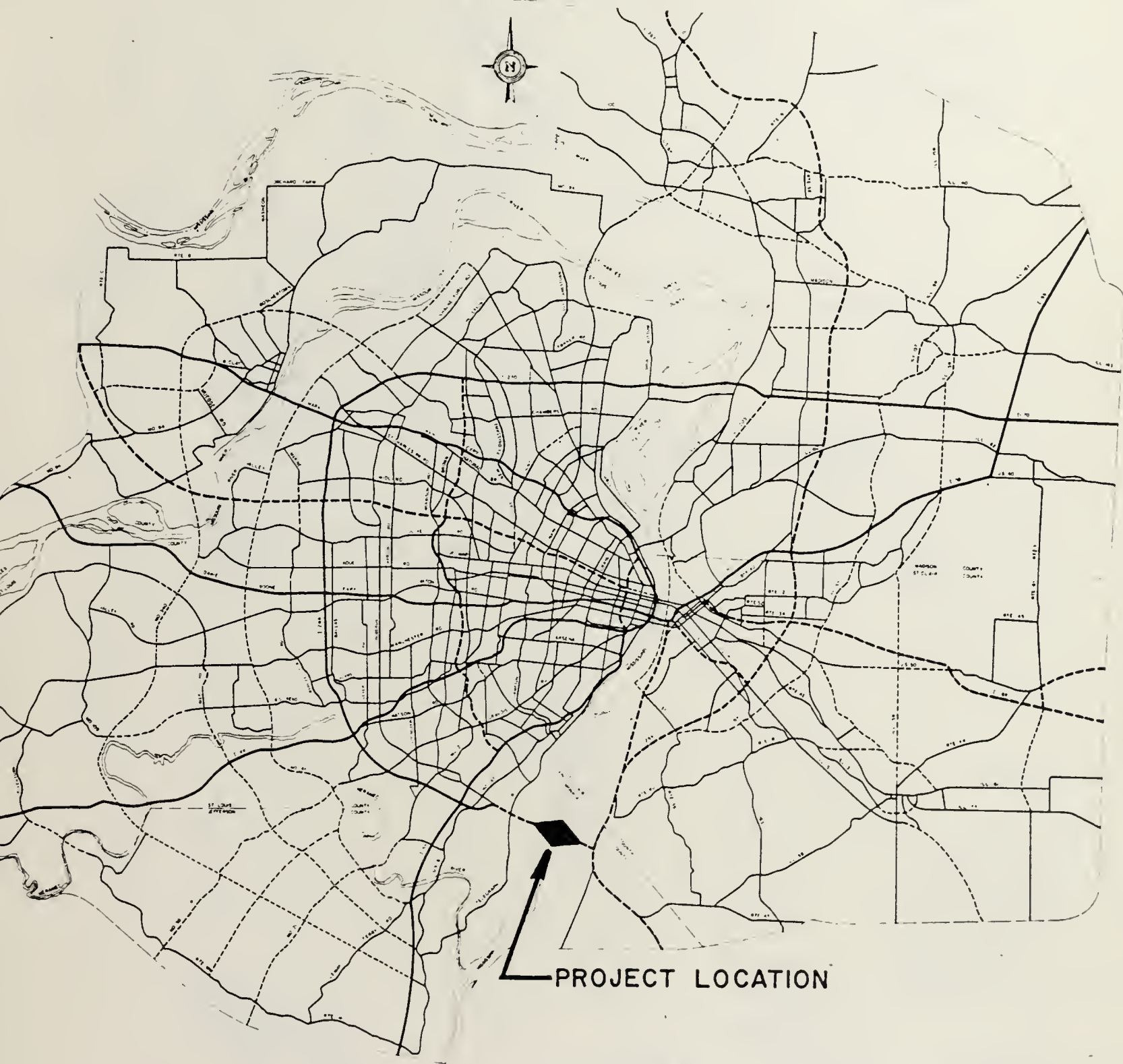
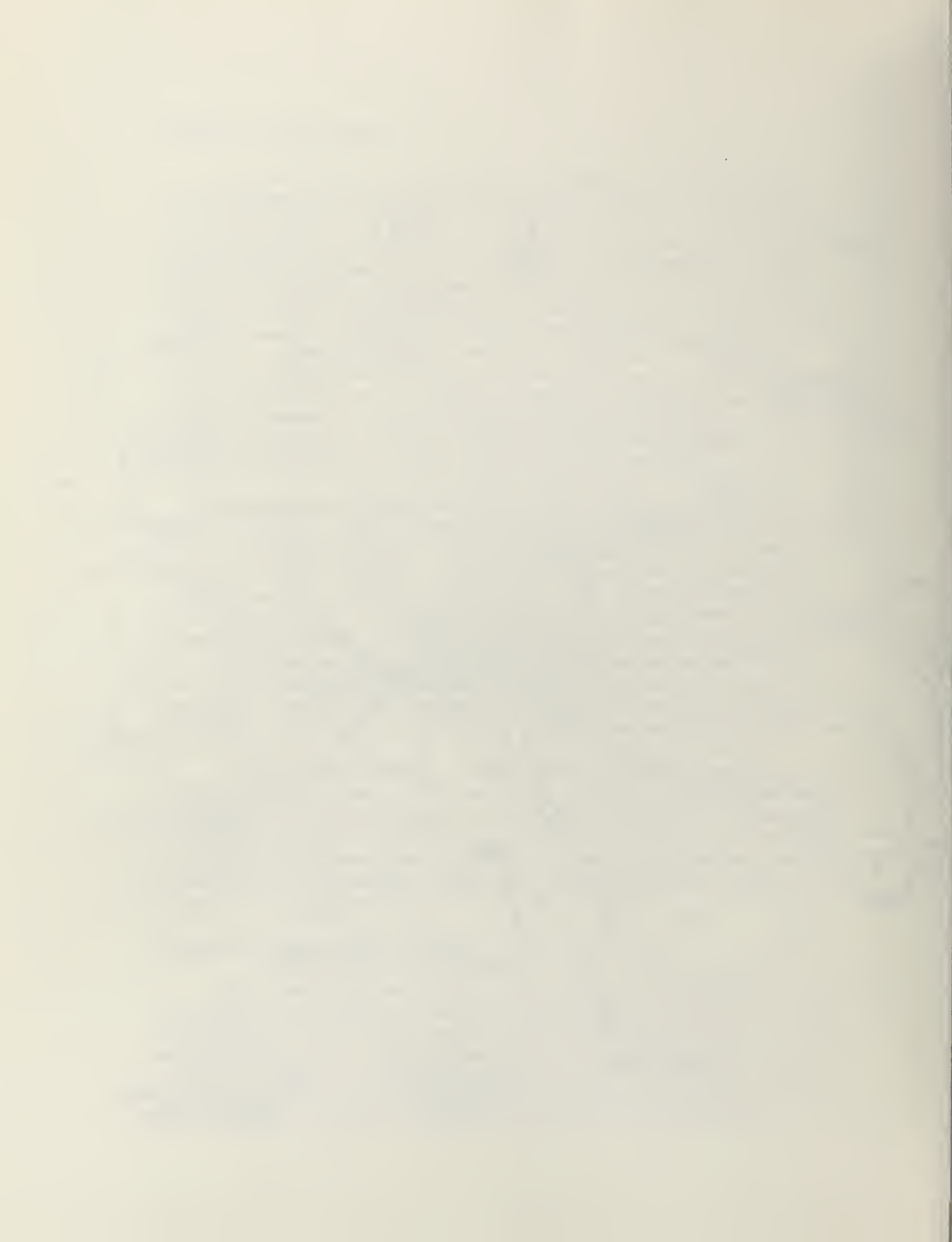
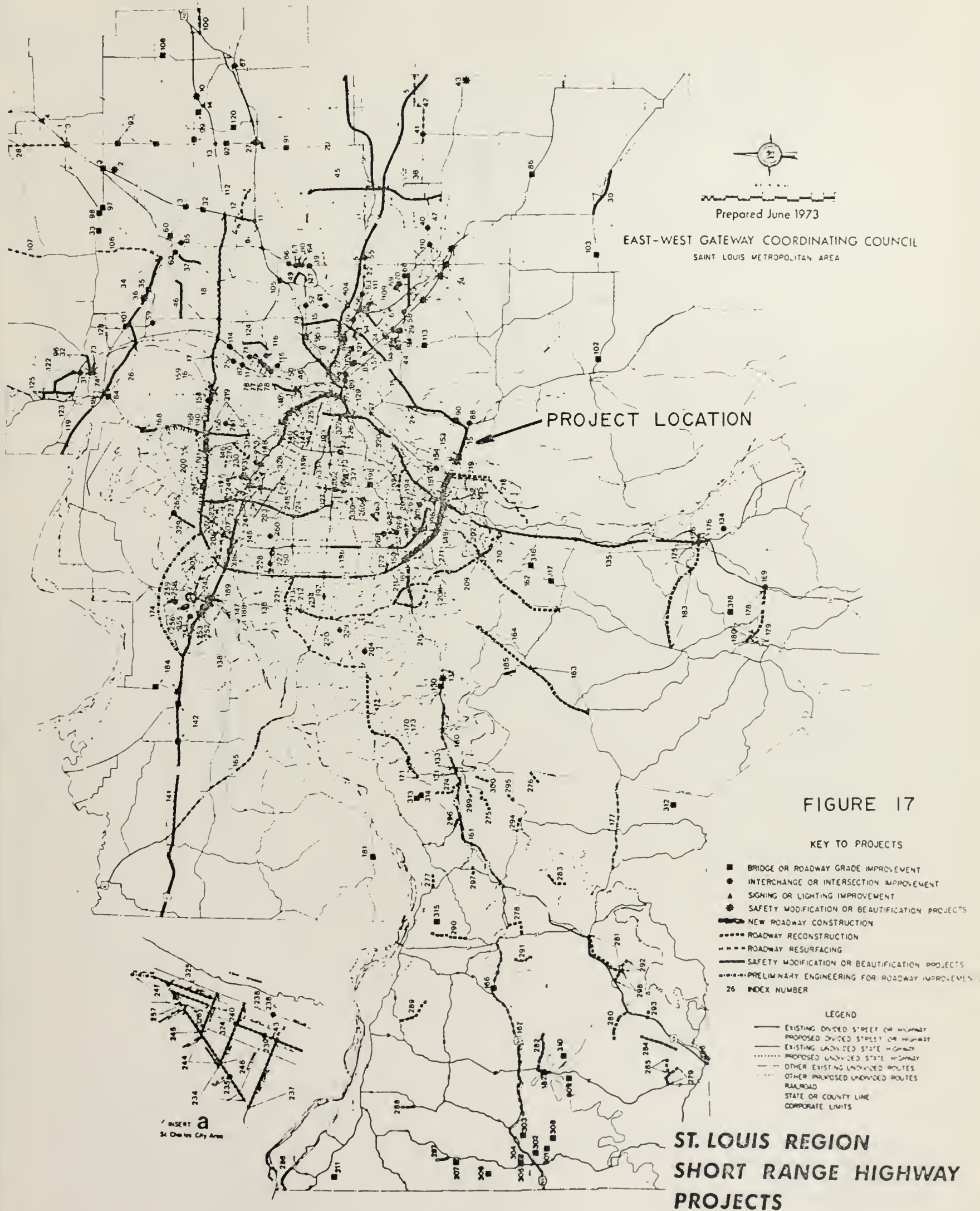
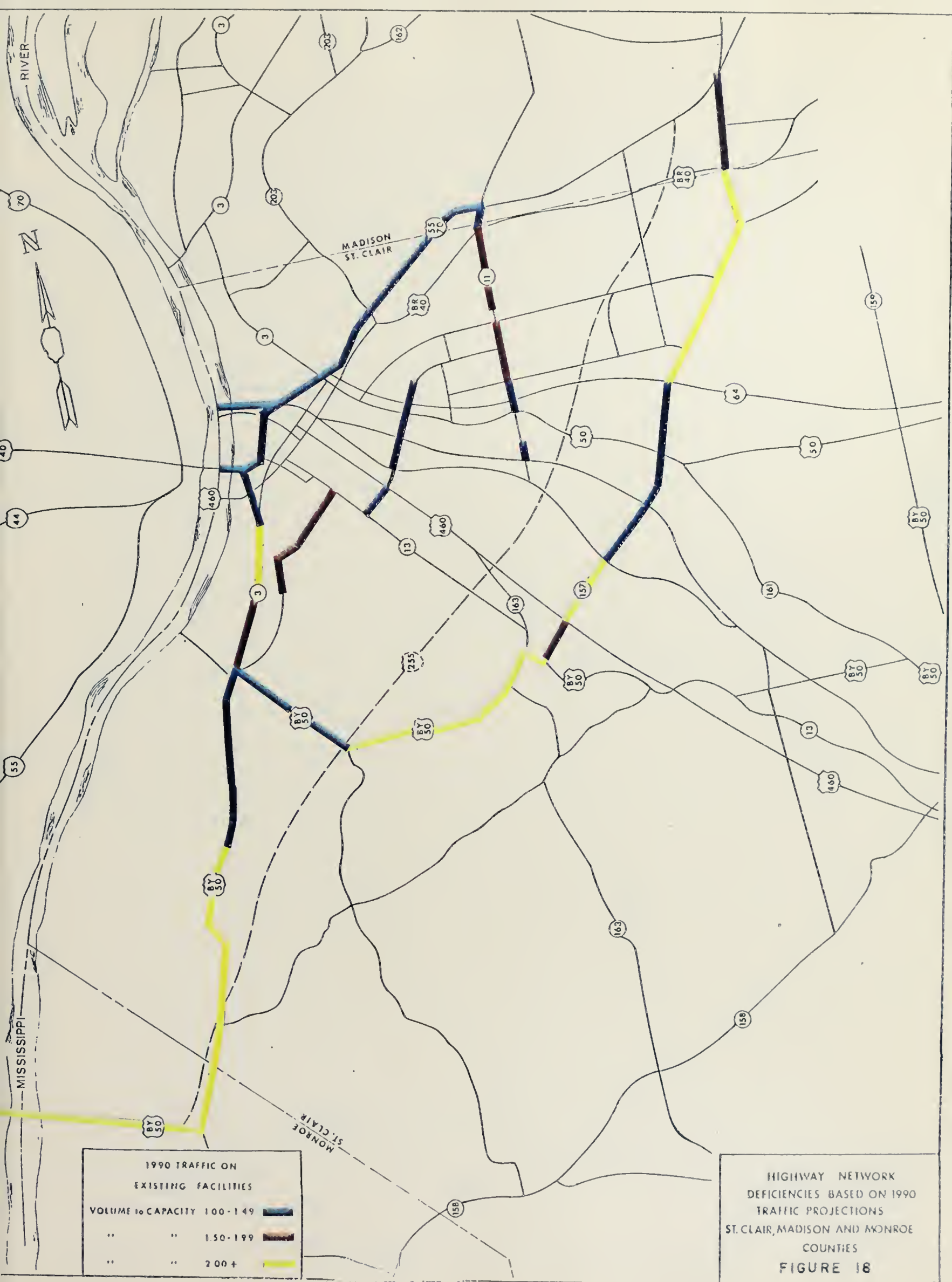


FIGURE 16
ST. LOUIS AREA
ROAD PLAN









The latest regional transportation plans are contained in the Council's reports entitled, Streets, Highways and Transit (1973); 1973 Short-Range Improvement Program (1974); and The 1995 Transportation Plan for St. Louis (1974). The short range transit plan, which is designated to improve existing bus service, calls for the purchase of new buses, construction of passenger shelters and park and ride lots and the installation of exclusive streets and reserved lanes for buses. Short range street and highway improvements involve 576 miles of new and improved roadways as indicated in Figure 17.

The 1995 Regional Land Use Plan, which is graphically illustrated in Figure 14 is the basis for both the short range improvement program and the long range transportation plan. This project is included in the short range program. The long range plan represents the Council's desire to provide a balanced multimodal network for the area, composed of complimentary street and highway and mass and rapid transit systems. There are, however, several other planning issues which must be resolved along the way to implementation. These unresolved issues are the subject of the section that follows.

Other Area Planning

This project has been included in all plans developed by the Southwestern Illinois Metropolitan and Regional Planning Commission, and is supported by the cities of Columbia and Dupon, as well as many other communities in the area.

MAJOR UNRESOLVED PLANNING ISSUES

There are currently several major developments in various phases of study which, if implemented, would act to accelerate economic development and the need for the proposed project (bridge and roadway). These potential new developments are:

- A second Metropolitan Area Airport
- An Improved Mass Transit and/or a New Rapid Transit System
- River Port Development
- Coal Gasification and Liquefaction
- Conservation

A brief discussion of the potential impact of these projects follows.

Airport Development

Although U.S. Secretary of Transportation Coleman has recently approved the location of a new airport in the Waterloo area, interests in Missouri have challenged this decision. However, the construction of a new metropolitan airport at the Columbia/Waterloo site is expected to provide an economic

stimulus for the entire St. Louis region. Based on a study conducted for the St. Louis Metropolitan Area Airport Authority, the construction of a new regional airport near the Monroe County communities of Columbia and Waterloo is projected to generate an additional 32,924 workers (average annual direct and indirect employment) between 1980 and 1990. These new jobs when translated into travel demand will create a sizeable impact on the area, and traffic in the J.B. bridge corridor would increase accordingly. This airport is included in the Council's 1995 Regional Land Use Plan and thus is compatible with the road plan that includes the proposed action.

Mass and Rapid Transit

Several proposals to improve mass transit in the St. Louis region are under study at this time. The East-West Gateway Coordinating Council is currently studying the relative merits of an improved bus system and a fixed-rail rapid transit system. A fixed rail line to link the proposed new airport and east side with St. Louis County and Lambert-St. Louis Airport is also under study. While bus routes are flexible and can be easily changed or expanded in response to new development and would probably not significantly alter the trend toward low-density urbanization, a fixed-rail rapid transit system would likely produce a significant change since fixed rail represents a permanent capital improvement.

River Port Development

Efficient port facilities are needed to sustain the inbound and out-bound flow of dry bulk, liquid bulk, and general cargo commodities to and from the St. Louis region. Although the projected increase from 18,721,000 tons in 1969 to 53,635,000 tons in the year 2000 would in large part be accommodated by single industry private port users, a large segment of the traffic will be served by expanded and improved public port facilities, particularly for bulk commodities, which constitute the greatest share of existing and projected flows. The impact these facilities could have on the proposed new J.B. bridge will depend on their size and location which is under study.

Coal Gasification/Liquefaction

The gasification and liquefaction of coal offers great potential for increased industrial and economic development in Southern Illinois. Both the U.S. Congress and the President's Office have indicated that increased utilization of coal is an essential part of attaining energy self-sufficiency, and Illinois in response has also given this subject priority consideration. The region is near a major portion of the source of supply and production of coal and thus could be expected to play a major role in a new shift to a coal-based energy economy. At the present time, the federal Energy Research and Development Administration (ERDA) and COALCON (a consortium of energy related industrial firms in the private sector) are involved in a joint effort to establish with local support from the Illinois Department of Business and Economic Development (IBED) a coal liquefaction (Clear Boiler Fuels) demonstration project in New Athens (St. Clair County), Illinois, which is approximately 25 miles southeast of the J.B. bridge. The proposed new bridge could be an important link in the transportation network that is needed for access.

Conservation Proposals

Two major opportunities exist for the creation of conservation areas. One opportunity is embodied in the land located along the banks of Silver Creek in Madison and St. Clair Counties. This area contains one of the last major stands of trees in this region and is the habitat for many species of wildlife. The other opportunity is in the several thousand acres of State-owned land along the Kaskaskia River in St. Clair and Monroe Counties. The proposed J.B. bridge would improve the access from the western sections of the region to these two conservation areas which represent a sizeable open space resource.

CONSTRUCTION SCHEDULING

The substructure for the river crossing is included in the current Construction Program of the Illinois Department of Transportation. Construction is expected to begin during calendar 1977. Separate contracts will be awarded for superstructure and for the roadway work. Completion of the project is expected by 1983.

CHAPTER III ALTERNATIVES

The alternatives to the proposed action can be classified in four general categories:

- . Build a new facility on a new alignment
- . Improve the existing bridge and roadway
- . Provide rapid transit to satisfy future needs
- . Do nothing

These alternatives and their impacts are discussed in the sections that follow:

BUILDING ON NEW ALIGNMENT

The construction of a new facility on a new alignment would be out of step with plans to link it with sections of the Federal Interstate belt route that are already in place in Missouri. Construction in a new alignment would also result in the penetration of sensitive areas and the interruption of established neighborhoods thus separating them from essential community facilities while displacing homes, businesses and in certain instances, industry.

There would be a commensurate impact on air and water quality and noise levels. And the construction of the approach road in Illinois to a new Mississippi River crossing would introduce a set of conditions including the impact on natural surroundings and the complex network of navigation, flood control, and drainage features that has already long been established (since 1942) on the present alignment.

DO NOTHING

To "do nothing" would result in the least capital expenditure. The existing facility is, however, almost 40 years old, and its numerous deficiencies take their toll in other ways. These deficiencies are as follows:

- . The cross section of the roadway and bridge pavement width are below current acceptable standards.
- . The drainage system to carry runoff from the bridge was designed for storms that have since increased in intensity.
- . The elevation of the roadway embankment does not satisfy current flood control criteria.

- . The rate of increase in bridge maintenance costs is rising with the increase in the age of the bridge.
- . The two lane capacity of the facility will, in the future, no longer accommodate traffic within an acceptable level of efficiency and safety (see Figures 18 and 19 for comparison).
- . The diversion of traffic due to a lack of capacity will create adverse environmental impacts in other locations.

The lack of capacity at the Jefferson Barracks bridge and diversion of traffic to other locations will result in the following impacts:

- . An increase in congestion and travel time which will otherwise restrict access to employment and commercial activities with the resultant loss in opportunities for economic growth.
- . An increase in air and water pollution and noise levels.
- . Damage to the immediate area in the event of a 200 year storm since a flood of this magnitude would overtop the existing roadway, endanger the embankment and flood the surrounding area.
- . Accelerate the rate of increase in accidents; this is particularly critical in light of the increased usage of J.B. bridge by trucks hauling petroleum products.

To do nothing would also leave a major link in the Federal Interstate and metropolitan area belt route unfinished.

IMPROVE EXISTING FACILITIES

One variation in the improvement of existing facilities would retain the existing roadway and bridge and construct a parallel 2-lane facility to provide a four lane divided highway. However, in this instance, when construction is completed, one bridge and roadway would be almost fifty years older than the other, producing contrasts in design features that are reflected in this age differential. And unless costly major adjustments were made to the existing bridge and roadway much of the same deficiencies that characterize a decision to do nothing would prevail here. A new two lane bridge when added to the existing facility would, however, forestall the diversion of traffic to other locations during the design period. The capital needed to construct an additional two lane facility would, of course, exceed the cost to do nothing.

PROVIDE RAPID TRANSIT

Results of a study conducted by the East-West Gateway Coordinating Council, the 3C planning agency for the St. Louis region, indicate that the type and character of future travel demand do not warrant nor support the need for a fixed rail rapid transit facility in this trans-river corridor. Travel patterns that would support a fixed rail rapid transit facility would require land use densities that would represent a departure from currently adopted policies for development in the immediate area and nearby sections of the region. These densities would by necessity be much higher than those that prevail in rural areas which in some instances are planned for limited suburban development.

Although express bus rapid transit is better suited to serve suburban type development, the installation of express bus service in the area would not significantly reduce the levels of future auto and truck travel in this trans-river corridor, and the impact on the surroundings would not be unlike the impacts discussed in Chapter IV that follows.

CHAPTER IV

PROBABLE IMPACT OF PROPOSED ACTION ON THE ENVIRONMENT

The proposed improvement will have certain impacts on its natural and man-made surroundings. These impacts are discussed in this section in terms of the proposed improvements' effect on air quality, noise levels, water quality, flood control, ecological features and socio-economic conditions. Other issues also addressed include the impacts of construction activity, the unavoidable adverse effects and the short term versus long term consequences of the project, and the irreversible or irretrievable commitment of resources. The section concludes with a discussion of the measures that should be taken to minimize harm.

AIR QUALITY

The air quality analysis of the proposed improvement was prepared in accordance with procedures contained in the Illinois Department of Transportation Air Quality Manual dated April 1976, which use vehicle emission factors derived from the document entitled "United States Environmental Protection Agency (USEPA) Publication AP-42, Supplement 5", dated December 1975. The analysis was based on "worst probable" conditions which included as parameters a Class F Pasquille Stability and wind of one meter per second (2.2 mph) intersecting the roadway alignment at an angle of 22.5 degrees, and the following table of traffic volumes, vehicle speeds and receptor distances.

TRAFFIC PARAMETERS USED IN AIR QUALITY ANALYSIS

Alternative (Receptor Distance)	Year	Average Daily Traffic (vpd)	Peak 1-Hr. Volume (.11 ADT)	8-Hr. Factor (% ADT)	Peak 8-Hr. Volume (veh.)	8-Hr. Average	Speed (mph)
						Hourly Volume (veh.)	
NO BUILD (30 feet = edge of pavement to ROW line)	1976	15,560	1,712	64	9,960	1,245	45
	1980	18,690	2,056	58	10,840	1,355	35
	1990	26,500	2,915	50	13,250	1,656	25
PROPOSED ACTION (82 feet = edge of pavement to ROW line)	1980	30,785	3,386	64	19,700	2,463	55
	1990	41,936	4,613	64	26,840	3,355	55
	1996	48,169	5,299	64	30,830	3,854	55
	2000	52,214	5,744	64	33,420	4,177	55

The 1980 Average Daily Traffic (ADT) of 18,690 for the No Build alternative represents capacity conditions for the existing two-lane facility in 1980 and beyond and the resultant impact of congestion on traffic operations is reflected in the decrease in vehicle speed and a reduction in the peak 8-hour traffic volume for the years 1980 and 1990; the 1990 ADT of 26,500 is assumed to be the level at which, in response to congestion and delay, there would be no further increase in traffic. The Proposed Action is expected to be completed in 1980, the time of completion (TOC).

The vehicle components of traffic are assumed to be:

- 92 percent light-duty gasoline powered
- 5 percent heavy-duty gasoline powered
- 3 percent heavy-duty diesel powered

Background carbon monoxide (CO) concentrations of 5 parts per million (ppm) for the peak one-hour period and 1 ppm for the one-hour average of the peak 8-hour period were assumed based on the rural setting of the area and its characteristic absence of sensitive receptors and sources of other CO emissions. These values were added accordingly as suggested in the USEPA publication entitled "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9, Evaluating Indirect Sources", dated January 1975.

The appropriate CO concentrations in ppm are presented in the following table:

ESTIMATES OF FUTURE CARBON MONOXIDE (CO) CONCENTRATIONS

<u>Condition/Year</u>	<u>Average Hour for Peak 8-Hour Period (ppm)</u>	<u>Peak 1-Hour (ppm)</u>
Federal Standard	9.0	35.0
NO BUILD		
1976 current	2.8	7.5
1980 TOC	2.3	7.0
1990 TOC plus 10 yrs.	1.8	6.4
PROPOSED ACTION		
1980 TOC	2.4	6.9
1990 TOC plus 10 yrs.	1.7	6.0
1996 Design Year	1.8	6.1
2000 TOC plus 20 yrs.	1.9	6.2

These results indicate that future levels of carbon monoxide generated by the traffic that is expected to use the proposed improvement will be well within acceptable federal standards, and thus, meet the national goal for ambient air quality prescribed by the Clean Air Act.

The same procedures were used (with similar results) in an earlier Missouri State Highway Commission review of the impact of traffic on air quality for the section of I-270 now under construction, i.e. from Missouri Route 231 (Telegraph Road) to the western approach to the Jefferson Barracks bridge (including the rest area), except that the CO levels determined for Koch Road were used as background CO concentrations for the No Build (U.S. Route 50) and the Proposed Action (I-270) alternatives. According to information provided by the State of Missouri, predicted levels of carbon monoxide meet the national goal for ambient air quality prescribed by the Clean Air Act.

Two other traffic related pollutants are considered to be hazards. They are hydrocarbons (HC) and oxides of nitrogen (NO_x). The highest concentrations of hydrocarbons are produced at engine idle. The level then decreases with increased vehicle speed to about 50 or 55 mph, where it tends to stabilize at a relatively low value. In contrast, concentrations of nitrogen oxides are lowest when vehicle speeds are in the 18 to 20 mph range; and below 18 mph, the highest levels are generated at engine idle, and above 20 mph, the increase in concentrations is related to the increase in average vehicle speed.

These pollutants also produce in the presence of sunlight a third toxic pollutant, ozone (O_3), when they react with each other or other atmospheric constituents and impurities. However, the amount generated depends upon the levels of HC, NO_x and O_3 already in the atmosphere upstream and the sunlight available to act as a catalyst. As a result, the primary effect of HC and NO_x concentrations is not necessarily observed in the vicinity of the source but rather at some distance, generally two or more hours, downwind. The situation is further complicated by the contributions at this distant location from other sources of reactive pollutants.

And since there is presently no acceptable technique available for estimating the location and level of impact the reactions created by these emissions would have, the results produced using otherwise deficient analytical methods would be neither meaningful nor productive. This conclusion is shared by the National Academy of Science in their report entitled "Air Quality and Automobile Emission Control, Volume 3, The Relationship of Emissions to Ambient Air Quality, prepared for the Committee on Public Works, United States Senate, 93d Congress, 2d Session". Thus, the traffic related HC and NO_x emissions that would be generated by the project have not been determined here, lacking an acceptable method needed to identify the impact the reactions they would produce would have on the surroundings downstream.

NOISE LEVELS

Highway noise levels were measured at several locations (see Figure 20) and then estimated in terms of existing (1974) and future design year (1996) traffic conditions - using the method set forth in the National Cooperative Highway Research Program Report No. 117 (NCHRP) entitled, "Highway Noise, A Design Guide for Highway Engineers".

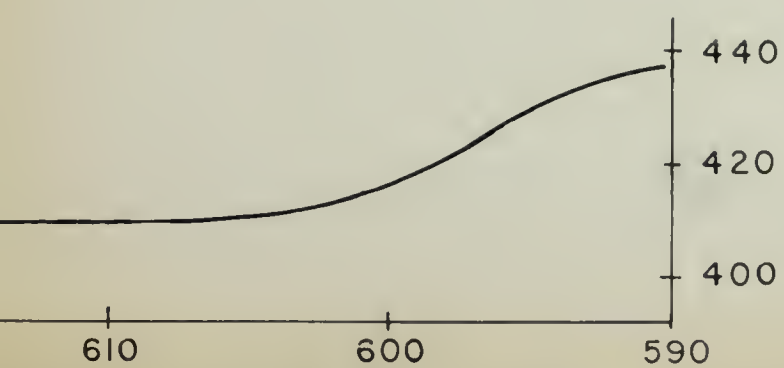
Five of the locations are buildings. These buildings stand on land that individually represent four major land-use classifications (Residential, Institutional, Industrial and Commercial), and three FHPM 7-7-3 categories (B, C, and E). Table 4 features the measured and estimated noise levels at these five locations and the appropriate FHPM 7-7-3 land-use category for each receptor. The table also identifies the distance from the roadway and the traffic flow conditions that were used in preparing the estimates of existing and future noise levels.

A comparison of predicted noise levels with existing and standard noise levels indicates that future L₁₀ noise levels will generally be in a range of 5-6 dB (A) above measured ambient levels. The predicted noise levels at 2 of the 5 receptors exceed standards contained in federally established Design Noise Level/Land-use relationships. The functions of the two buildings where FHPM 7-7-3 standards are exceeded are as follows:

<u>Site No. in Table 4</u>	<u>Function</u>
2	Gas Station at intersection of Bypass 50 and Illinois Route 3
11	Guard House at the entrance to Jefferson Barracks and Koch Hospital Road



FIGURE 20



NOISE INVENTORY SITES
AND 70dB(A) CONTOURS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

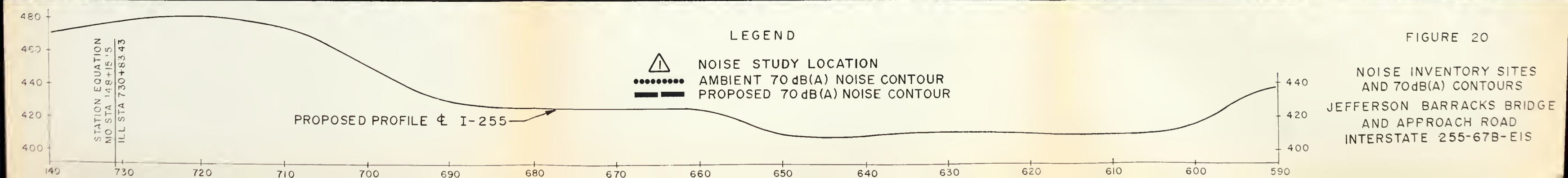
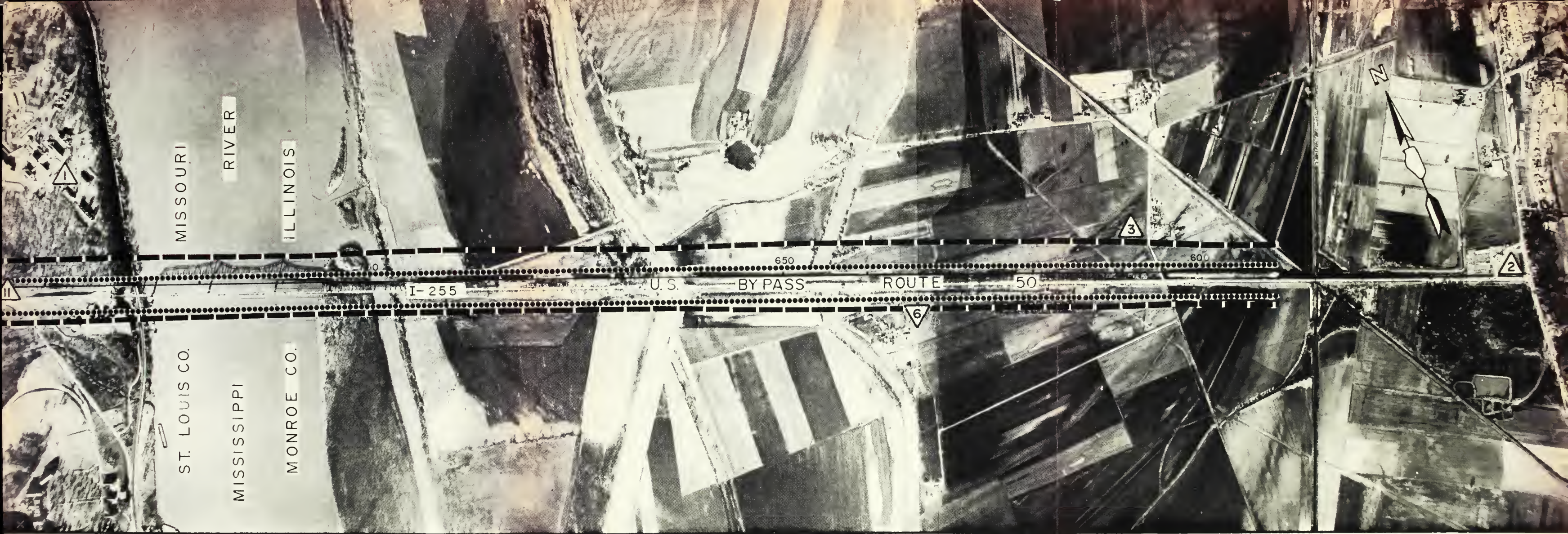


FIGURE 20

NOISE INVENTORY SITES
AND 70dB(A) CONTOURS
JEFFERSON BARRACKS BRIDGE
AND APPROACH ROAD
INTERSTATE 255-67B-EIS

TABLE 4
NOISE LEVELS AT LOCAL RECEPTORS
Environmental Impact Statement
Jefferson Barracks Bridge and Approach Road
I-255-67B-EIS

Receptor Location Code ¹	Dist. From dL	PPM 90-2 Land Use Category ²	PPM 90-2 Standards ³		Existing Exterior Noise Levels ³		Design Year Levels ³	Dist. From dL	Time and Day of Measurement ⁴		
			Ext.	Int.	Measured	Calc. ⁵	Calc. ⁵				
1	1350	B/E	70	55	60-61	55	62	1280	Tu.	11/26	1130
2	200	C	75	-	72-75	70	80	130	Tu.	11/26	1300
3	600	C	75	-	58-60	60	68	530	Tu.	11/26	1335
6	400	B/E	70	55	64-66	66	69	470	Tu.	11/26	1513
11	175	C	75	-	69-71	71	80	105	Wed.	11/27	1043

1 - See Figure 20 for location of buildings and receptor positions.

2 - Land-Use Category Description:

- A Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of these qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheatres, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
- B Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks.
- C Developed lands, properties or activities not included in categories A and B above.
- D Undeveloped lands.
- E Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

3 - Number of decibels [dB(A)].

4 - To be read as follows: day of week (Tuesday), date (Nov. 26, 1974), and measurements starting time (International Local 24-hour Time Standard).

5 - Traffic Volumes Utilized in Calculating Exterior Ambient and Future Noise Levels

	Existing (1974)	Design Year (1996)
Average Daily Traffic (ADT)	14,000	48,169
Design Hourly Volume (DHV)	1,747	6,011
Heavy Duty Trucks @ 8% of Total Vehicles	140	481

Traffic data furnished by Illinois Department of Transportation: Robert E. Kronst, District Engineer, 1974.

The guard house and the gas station will be removed to permit the construction of the proposed interchange with Koch Hospital Road (guard house) and proposed interchange with F-410 (gas station). The noise level at the other three receptors: the hospital on the grounds of Jefferson Barracks, Site No. 1; and the residence on the north side of the existing roadway, Site No. 3; and the farmhouse and mobile homes south of the roadway, Site No. 6 are within acceptable standards.

Thus, the reconstruction of the J.B. bridge and approach to Interstate highway standards as I-255 is not expected to create a significant noise impact. The distance to the highway of all new dwellings, however, should be restricted to 400 feet at a minimum (location of the 70dB (A) contour in Figure 20) and 1000 feet where economically feasible.

WATER QUALITY

Field samples were taken at 10 locations to identify the existing quality of water in the streams and wells that are located in the area. These samples were analyzed in accordance with techniques described in Standard Methods for the Examination of Water and Wastewater, 13th edition. Several engineering studies were conducted to identify the relative impacts the proposed improvement would have on the streams and aquifers in the area. A discussion of these impacts follows.

The tied arch spans of the bridge will be supported on concrete piers keyed to bedrock. The approach spans will be supported by piers resting on piles driven into the alluvium above the bedrock. The new roadway will be placed on fill material (embankment) on top of the alluvium.

Cofferdam excavations, pile driving operations, and subsequent placing of concrete associated with the construction of the bridge will not have a significant effect on the capacity of the Salem limestone to store or transmit water, or on the movement of water within the aquifer in the alluvium, when compared with the size of the undisturbed area that surrounds the bridge. And although the placement of fill for the roadway section leading to the approach spans on the Illinois side of the river will cause a slight compaction of the alluvium immediately beneath the fill, it will not significantly affect the movement of water in the aquifer.

The proposed improvement will remove approximately 23 acres of land which is now available for infiltration and percolation of runoff, thus reducing the capacity to recharge the aquifer. However, the impact

on the quantity of water supplied by this aquifer will be negligible since there are no large capacity wells within several miles of the project nor are any planned. The change in the surface characteristics of 23 acres of land will also result in an increase in the volume of highway runoff that will reach adjacent surface waters. However, this too will not be significant when compared with the large volume of water from runoff that is otherwise generated in the Palmer Creek watershed.

It has been found that the quality of the surface water in the area surrounding the proposed project does not meet most Federal and State water quality standards, and can be rated as poor to marginal. The poor quality is primarily due to non-highway related pollutants; further deterioration can be expected if the land is not wisely used in the future and if sanitary wastes are not properly collected and treated. However, it also has been noted that the runoff from the existing bridge and approach road is responsible for a small portion of the pollutants carried in these waters.

The runoff from the highway, in the form of rainwater or melted ice and snow, collects various pollutants that settle on the surface of the pavement, adjacent shoulders and embankment side slopes. These pollutants include:

- . Atmospheric fallout, including fumes and particulates created by motor vehicles, wind erosion, and adjacent stationary sources.
- . Oil and grease; lead, rubber, and other tire related materials, such as zinc oxide; and complex organic chemicals deposited by motor vehicles.
- . De-icing salt and abrasives; asphalt; and herbicides and fertilizers used in the installation and maintenance of the roadway pavement and embankments.
- . Miscellaneous materials from accidental spills and vehicular accidents.

The chloride from deicing salts, unlike most highway pollutants which are difficult to measure, is highly soluble in water, and produces a solution that is very stable. In solution in highway runoff it may percolate thru the soil to ground water or be diverted by ditches to surface water courses. Salt pollution of flowing streams has been generally observed as an abrupt increase in chloride concentrations during the thaw, following a snow or rain storm and subsequent freeze and salting. However, these intermittent peaks are not generally hazardous to animals or fish, according to data published in 1970. (Effects of Deicing Salts on Water Quality and Biota, National Cooperative Highway Research Program, Report 91, Highway Research Board, 1970.)

Water quality samples were taken from the streams and wells located in the area affected by the proposed action in early December 1974, about four to five days after the existing bridge and approach road had been salted and then plowed following a 1- to 2-inch snowfall. Although the chloride concentrations in the surface waters (streams) ranged from 15 to 658 milligrams per liter (mg/l) the chloride concentrations in the water taken from the wells were only 19 to 25 mg/l. Since there was no information on the level of chloride in these streams and wells prior to the salt application, it was not possible to establish what portion of these concentrations was directly attributable to deicing salts. However, it is probable, based on these results, that the higher concentrations of chloride found in the streams represent the peaks which follow thawing and the continued future application of 2 tons per lane-mile per year is not expected to result in sustained concentrations of chloride at levels greater than 250 mg/l, the Public Supply Standard for both surface and groundwater. Accidental spills could be controlled in the ditches alongside the roadway, but little, if anything, could be done on the bridge itself. If a spill should occur, Civil Defense will be notified so that corrective action can be taken immediately.

The removal during construction of vegetation which holds soil in place increases the quantity of sediment carried to surface water courses during periods of rainfall. Other potential pollutants on the site, including fuels and lubricants from construction equipment or the actual materials of construction, are transported along with sediment. Consequently, the suspended sediment content of area streams would increase, and the concentration of other pollutants such as oil and grease may temporarily increase.

The increase in suspended solids is not considered an impediment to water quality, and there is no applicable Illinois standard. However, without proper attention, this sediment could: 1) cause fish gills to clog; 2) settle on and eliminate bottom dwelling plant and animal life; and 3) reduce the ability of light to penetrate resulting in slower growth of photosynthetic organisms.

It is concluded that with careful planning and proper management, the construction and subsequent operation of the proposed bridge and approach will have no significant impact on the quality or quantity of ground water. The impact on the quality of surface water is expected to be reflected in an intermittent increase in chloride levels after a snowfall.

FLOOD CONTROL

The loss of energy in the flow of water under bridges is produced in two ways, a constriction in the effective area of the water flowing in the river bed (such as levees and bridge abutments), or the presence of obstructions within the effective flow area (such as bridge piers).

These factors were used in a study designed to determine the impact of the bridge opening on the flow and backwater created by a 200 year flood. An evaluation of the results of this study suggest the following:

The relative change in velocity that would be caused by the bridge piers is comparatively small and the effect of the piers can be neglected.

A portion of the effective flow area will be lost when the highway grade is raised to the proposed elevation to prevent overtopping.

However, the main channel opening will be increased to compensate for this loss and the net result will be a higher concentration of the flow in the main channel and a decrease in the flow in the overbank (the flood plain located between the levee and the normal bank of the river). Ponding in the overbank upstream and downstream from the approach road will, of course, still occur, as it does now.

The potential to change the natural features of the floodplain due to overtopping the approach road at flood stage (200 year) will be eliminated. The elevation of the new approach road will prevent the bridge opening from becoming a weir, which would otherwise cause high velocities of flow over the floodplain and the removal of its cultivated topsoil, a condition that now occurs for river stages greater than a 50 year flood.

The velocity patterns will change slightly after the approach road embankment is raised and the main channel opening is expanded. As a result, there will be a reduction in the velocities of flow in the floodplain (overbank), and the floodplain will then be exposed to the softer eddy effects of ponding in contrast to the scour created by stream flow. On the other hand, flow velocities in the main channel will increase slightly; however, these increases are not expected to cause any additional scour in the normal river bed.

The only change in natural surroundings will be the removal of a grove of small trees and brush along the north side of the approach embankment. The impact this will have is covered in the discussion of the project's impact on the ecology in this area.

ECOLOGY

The natural habitats found in the area of the proposed I-255 bridge and approach road display characteristics that are typical of Midwestern floodplains, based on the results of the numerous biological investigations that were conducted. A discussion of the impact the proposed improvement will have on these habitats follows.

Floral patterns are dominated by medium-sized Cottonwoods and Black and Sandbar Willows. Saplings and seedlings, woody vines and herbaceous plants are sparse, due in part to the frequent inundation of the area. The trees, wood vines and herbaceous plants that occupy the small uncultivated areas that border Bypass 50 will be removed during construction. However, these areas with proper conservation measures will revegetate within a few years.

The faunal community is dominated by small rodents and mammals. The removal of the usable mammal habitats in the construction area will cause migration of the inhabitants to surrounding areas. A major share of small mammals that are permanent residents will probably succumb to predators or die of starvation or exposure, lacking the ability to find a suitable new habitat. However, once the roadway is constructed, those that survive are likely to reestablish themselves in the area.

Raccoon and Whitetail Deer are transients in the area and will probably suffer little adverse effect. Beavers inhabiting the area will be forced to move to an area that has a continuous supply of water and suitable food near the water. Woodchucks inhabiting the highway embankment will be forced to relocate in a well drained area and the levee is the only suitable habitat in the immediate area. Eastern Cottontails will possibly move into the nearby areas along the existing roadway; however, most of them will probably be victims of exposure and attack from other animals and man.

The construction of the proposed improvement will also impact the avian populations inhabiting the area. Removal of the few acres of timber located along the roadway will eliminate feeding and nesting habitats of woodpeckers, warblers, and vireos. Similarly the removal of fallow fields, brushland and marshes along the roadway will eliminate the habitat of such species as sparrows, wrens, blackbirds, and finches. The hunting grounds of the hawks and owls that might frequent the area will also be affected. The displacement of the avian species that now nest in the proposed construction area will create stress situations which will result in their relocation to new territories in nearby areas and the death of some. Since the area to be disturbed is relatively small, the numbers affected will be correspondingly small.

There is a small fish population and a small benthic population located within the construction area of the proposed new crossing. And any disruption caused by future construction would have little or no detrimental effect upon the fish population and benthic communities in the immediate vicinity of the proposed construction area.

Overall, the proposed improvement will have minimal ecological impact. Some vegetation and small mammals will be removed; however, the extent of this impact is insignificant when compared to habitats in the overall area. No unique or unusual habitats and no rare or endangered species were present along the proposed route.

SOCIOECONOMIC CONDITIONS

The most immediate socioeconomic impact of the proposed improvement will be the inconvenience to the people living north and immediately south of the existing roadway (Bypass 50) caused by changing the existing road to a limited access highway. This is based on the study and evaluation of information obtained from numerous primary and secondary sources of information. The direct access these people now have to the roadway at TR 26/28 (Levee Road) and TR 28A will be eliminated when these intersections are grade separated, but without interchange ramps. Other roads in the area will have to be used. The movement of farm equipment and transportation of farm products would also be affected in the same way.

The proposed improvement will not sever any community since none exists at this location. Those in the immediate area, when they do identify with a community, look to Columbia which is located 5 miles to the southeast. And, no one will be cut off from the new highway since they will be able to gain access by using other township roads in the area to reach the I-255 interchanges scheduled for improvement in the Illinois Route 3 (F-410) corridor. However, the proposed improvement will eliminate direct access to a farm located south of the existing roadway where the people living in two mobile homes rent facilities. These people will need to use other sections of the existing local road network for access. On the other hand, the proposed limited access design of the facility should halt the increase in accidents that has been observed in recent years and at a minimum present no greater hazards than already exist.

School bus routes would have to be rearranged, but this would not be unduly difficult to do, according to the Monroe County Superintendent of Schools. The exact number of children to be served, and the most suitable routing is not easily determined at this time given the changes in the location of school aged children that will occur between now and the anticipated completion of the improvement (1980). On the positive side, it can be maintained that school buses confined to secondary roads would not face the potential traffic hazards they encounter when they are loaded and unloaded on heavily traveled 2 lane highways. This on balance, will result in an advantage to school bus operations.

Like school transportation, the police patrols operated by the Monroe County Sheriff's Office and the fire equipment located in the City of Columbia would have to adjust their travel patterns to accommodate the new freeway connections to the local road network. Ambulance and other emergency vehicle drivers would have to adjust accordingly, although even now they must use several different routes to get to hospitals scattered about the area. However, the increase in freedom of movement and operational safety on the proposed new facility will result in a benefit to public service and emergency vehicle operations.

The recreation related travel of the people in the area would be improved since access to leisure time activities appears not to be dependent on any given road in the local network.

There are five natural gas transmission mains under the existing roadway at two locations. Likewise, electric power lines cross the roadway at two locations. Adjustments to these facilities are to be made in a manner that will not cause an interruption in the delivery of services.

In general, despite the inconvenience to people who will be living near the proposed improvement whose direct access would be circumvented, there will be a gain in time and ease of travel produced by reducing highway congestion for the many commuters, shoppers and other local users, going both ways between the two states. The improvement will also benefit longer trips; these benefits will be further enhanced when the proposed major connecting highways are ultimately built.

It will not be necessary to relocate any homes, farms, businesses or industries to complete the proposed improvement, thus eliminating all the problems that are attendant to the relocation of these facilities. The

improvement will, however, generate during the construction period approximately 6460 man-years of employment; 1680 man-years in construction activity, and 4780 man-years in jobs that would be indirectly associated with the project.

The purchase of additional right of way needed for the proposed improvement will remove approximately 30 acres of farmland from the productive agricultural capacity of the area. The potential yearly cash value of the productive capacity of this land for the 3 most popular crops grown in the area is tabulated below.

Crop	Anticipated Prod.Capacity ¹		Yearly Gross Revenue (1974 Dollars)		Yearly Production Costs (1974 Dollars)		Total Net Annual Revenue (1974 Dollars)
	Bushels	Tot.Bu.	Per Acre ²	30 Acres	Per Acre ²	30 Acres	
	<u>Per Acre</u>	<u>30 Acres</u>	<u>Per Acre²</u>	<u>30 Acres</u>	<u>Per Acre²</u>	<u>30 Acres</u>	
Corn	100	3000	270	8100	220	6600	1500
Wheat	40	1200	115	3450	80	2400	1050
Soy- beans	35	1050	190	5700	150	4500	1200

1 - Monroe County - agricultural extension advisor.

2 - University of Illinois - cooperative extension service.

Since the crop yields fluctuate yearly, so do the anticipated gross revenues. However, the cost to produce each bushel is expected to increase at 8 per cent per year.

The reduction in tax base resulting from the removal of these 30 acres would be \$5250, if assessed at the maximum valuation for farmland (land) in this section of the county, which is \$175 per acre. The reduction in annual tax revenue at the present rate of \$5.48 per \$100 valuation would be \$277.20. When adjusted downward 5 percent to account for the difference between collections and levies, the annual revenue lost would be \$263.34.

However, the economic loss to the county, and its tax base, in the diversion of this land to public use for the new improvement will be more than offset by the increased value and productive capacity of other land in the county for commercial and residential uses. This is particularly

true with reference to the Chapel Spring planned unit which is located in the same taxing district. Both I-255 and F-410 will enhance the potential for its development. And, based on studies conducted in Chicago, the gains accruing to residential land located near major expressways, compared with similar control areas located some distance from the expressways, ranged from 40 to over 300 percent.

Property valuations, especially for residential property (lots), have increased rapidly in Monroe County in the last decade.

Although this growth is partly due to inflation, it tends to reflect the trend toward suburban development taking place in this general area. In the last two years the market value of land in Monroe County suitable for development has increased between 10 and 15 percent per year. While the effect of the new bridge and linking highway on land values might not be immediate, it is reasonable to assume that the intermediate or long run impact on land values and the tax base would be positive.

The use of the land adjoining or near the new highway for industrial purposes is unlikely for several reasons. Current zoning and future land use plans require that it be continued in agricultural use, and any change in the Land Use Plan and zoning ordinance would have to be approved by the Monroe County authorities. There is an ample supply of suitable land for industrial sites in other sections of the area; and although the prospect for industrial development in Monroe County could change if a major regional airport is built, it is expected that these activities would be located on the bluffs and not in the floodplain.

The proposed improvement is to function as a major link in the street and highway system that has been approved for development in the St. Louis region. In this role it responds to the basic transportation goal of the region by meeting the need to satisfy both existing and future traffic demand, the estimate of future traffic demand having been coordinated with plans for future regional growth and land use by the East-West Gateway Coordinating Council.

The proposed improvement also satisfies the objectives of the region. It will provide quality service and minimize door to door travel time; combined with appropriate zoning policies, it will prevent urban sprawl, improve the area's land values, and enhance social and environmental conditions; and given these benefits and the travel patterns they will create, it will ensure public safety and optimize the use of energy and financial resources.

ARCHAEOLOGICAL AND HISTORIC RESOURCES

Planning activities for this project have been sensitive to the delicate nature of cultural (historic, architectural and archaeological) resources.

The proposed project has been extensively coordinated with the Monroe County Historical Society, the State Historic Preservation Officer, the Illinois Archaeological Survey, the U.S. Department of the Interior (National Park Service), and the Advisory Council on Historic Preservation to locate and identify all potentially significant cultural resources and to adopt appropriate measures to preserve such resources.

Inventories of the cultural resources were compiled for this project in consultation with the State Historic Preservation Officer. Using the Procedures for the Protection of Historic and Cultural Properties (36 CFR 800) as promulgated by the Advisory Council on Historic Preservation the guidelines provided to federal agencies which contain revised criteria for a "no adverse effect" determination where archaeological resources are involved, the following conclusions were reached:

1. that the proposed project will have no effect on any recognized historic landmark located in the vicinity of the project;
2. that the proposed project will have no effect on the Lunsford-Pulcher Archaeological Site.

A third finding, that the proposed project will have no adverse effect on the Jefferson Barracks Bridge Road Archaeological District, the American Bottom Archaeological District, or the Pleasant Ridge Road Archaeological District has been filed with, and an objection to the finding has been raised by the Advisory Council on Historic Preservation (ACHP). A meeting with ACHP is being arranged for February, 1977 to prepare the required Memorandum of Understanding (Agreement). The ACHP has agreed that this is an acceptable approach and that the FEIS can be completed prior to the adoption of the Memorandum of Understanding (see page A-6 in Appendix A).

The State of Missouri has determined that the I-255 project will have no detrimental effects on the Jefferson Barracks Cemetery, a National Register Property, shown on Figure 11. The Missouri portion is presently under construction.

The proposed project right-of-way contains seven (7) known archaeological sites. These seven sites are located within the Jefferson Barracks Bridge Road Archaeological District, which has been established as being eligible for the National Register of Historic Places. Documentation of the preceding is contained in Appendix A.

It has been recognized that an archaeological site consists of artifacts (pottery, scrapers, knives, projectile points, etc.) features (post holes, fire pits, storage pits, etc.) and contextual information (location of features or

artifacts on the surface or within the ground). Since the position (both horizontal and vertical) is important, any alteration of the earth's surface has been recognized as being potentially destructive of the archaeological record of the site.

The tremendous archaeological resource base of American Bottom (which at the present time is only partially known) makes total avoidance of sites impossible. Regardless of where the alignment is placed, it is inevitable that important sites will be encountered. The State Historic Preservation Officer and the Illinois Archaeological Survey have concurred that realignment of the proposed project will not reduce the magnitude of the archaeological involvement.

American Bottom is located within the St. Louis Standard Metropolitan Statistical Area (SMSA), an area experiencing outward expansion. A number of modern communities are located in the Bottom (in Alton, Granite City, East St. Louis, Dupon, Caseyville, Collinsville, Washington Park, etc.). Outward expansion of these communities is threatening much of the remaining archaeological resource base of the American Bottom. Specific plans by private parties to develop portions of several large archaeological sites have recently been revealed. Avoidance of these sites by the I-255 project would not save them, but rather expose them to destruction.

Professional personnel and techniques will be utilized to salvage all archaeological resources located within the project right-of-way. The proposed I-255 project includes the complete salvage of all archaeological sites affected by highway construction (this also applies to borrow pits). Such salvage operations will be completed before any highway construction activities are commenced. Any other archaeological sites that are discovered as part of highway construction operations will be investigated and salvaged before highway construction operations are permitted to continue. This procedure will preserve the archaeological artifacts and data. The artifacts will be placed in a state depository, and the data recovered will be published.

The I-255 project will require approximately 900,000 cu. yds. of borrow material. It is recognized that potential borrow areas may possibly contain archaeological sites. An attempt will be made to locate borrow areas that are not archaeologically significant and to identify them for use by the contractor. Other borrow sites will undergo archaeological salvage in the same manner as the right-of-way.

In June, 1976, a new Cooperative Agreement between the Illinois Department of Transportation and the Illinois Archaeological Survey was executed to provide for locating, assessing, testing, and salvaging archaeological resources. This agreement replaces a previous agreement in existence since 1969 and will be utilized for the I-255 project. Complete salvage of the archaeological resources located within the highway right-of-way was adopted by the involved agencies as the only practical method of assuring that the valuable archaeological record is not destroyed. A copy of the agreement is included in Appendix A.

Immediately after federal approval is granted to the I-255 project, salvage operations will begin. Construction activities will not be started until salvage is completed.

Section 4(f) of the Department of Transportation Act of 1966 (P.L. 89-670) and Section 138, Title 23, U.S.C. prohibits the use of land from a historic site of National, State, or local significance as determined by the federal, state or local official having jurisdiction thereof unless:

- a. there is no feasible and prudent alternative to the use of such land, and
- b. such program includes all possible planning to minimize harm resulting from such use.

The Federal Highway Administration has determined that these provisions do not apply for the following reasons:

1. None of the involved archaeological resources are presently listed in the National Register of Historic Places.

2. Although the involved archaeological resources have been determined to be eligible for inclusion in the National Register of Historic Places, the significance of the resources is unknown. The determination of eligibility was based, to a great degree, upon the potential of the resource to yield information.

3. Only archaeological salvage of the resource will provide the required information in order to make a final determination of the significance of the resource. Salvage operations physically destroy the site. When salvage is completed, the resource will be preserved and the need to protect the site will no longer exist.

CONSTRUCTION

The removal during construction of vegetation which holds the soil in place could cause an increase in the volume of sediment that is carried to surface water courses when it rains. Several other potential pollutants, including residuals from materials used in construction and fuels and lubricants used by construction equipment could be carried along with the sediment. As a consequence, the suspended sediment content of adjacent streams would increase and the concentration of other pollutants such as oil and grease could temporarily increase. The Illinois Department of Transportation has recognized the need for careful planning and proper management to reduce the impact of construction activity on water resources and uses its Special Provisions for Water Pollution Control in its Road and Bridge Construction contracts for this purpose. These provisions call for the temporary use of erosion control measures and their coordination with permanent erosion control features to assure the economical, effective and continuous protection of the environment throughout the construction and post-construction period. These Special Provisions are included in this Statement as Appendix B.

Also the engine exhaust from heavy equipment and the dust created by these vehicles as they travel over ground that is not sodded could significantly affect the quality of the air during construction. Open burning of waste materials could have a similar effect. The construction techniques cited in the Special Provisions will keep this to a minimum.

And there is the need to consider the impact of construction on river traffic. This issue is addressed in Article 107.13 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction.

Construction Noise

All engines and engine driven equipment used for hauling or construction will be equipped with an adequate muffler in constant operation and properly maintained to prevent excessive or unusual noise.

Construction within 1,000 feet of an occupied school, residence, motel, hospital or similar receptor shall be confined to the period beginning at 7 a.m. and ending at 10 p.m. This time restriction will not apply to maintenance or operation of safety and traffic control devices such as barricades, signs and lighting, or to construction of an emergency nature.

Any machine or device or part thereof which is regulated by or becomes regulated by Federal or State of Illinois noise standards will conform to those standards. Such equipment will be operated as designated above.

These and other impacts due to construction are addressed in Article 107.01 of the State of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction (see Appendix B, page B-4).

SECONDARY IMPACTS

The only significant secondary impact of the project relates to the growth of the area, particularly around Columbia.

The forecasts of future population for Monroe County developed by the Southwestern Illinois Metropolitan and Regional Planning Commission indicate that, the communities of Columbia and Waterloo will experience moderate growth.

Only a slight gain in population is anticipated for Dupon and East Carondelet in St. Clair County. In these communities the industry nearby and flat topography will tend to limit the trend toward suburban type development that is expected in the northwestern section of Monroe County.

A planned unit development, known as Chapel Springs, has been on the drawing boards for over five years. Funding for this development, which is located southwest of Columbia, has not been forthcoming, due in part to the state of the economy in recent years, and also due to the uncertainty of I-255.

Other development in the area which is being considered at this time consists of a multi-million dollar combined residential and light commercial area immediately east of the present intersection of U.S. Route 50 and Illinois Route 3, and an industrial area in the bottoms on the south side of the project.

All these developments have been planned because of I-255. It is a reasonable assumption that without this project, these plans would not be attractive economically and would probably never be built. The Columbia Planning Commission and the Monroe County Planning Commission have already re-zoned for these developments. They are also considering other developments which will occur in the area.

Two factors will play an important role in such development. I-255 is the important key to get it started. Final resolution of the new airport (see Pg. II-5) will accelerate the rate of growth. Such growth will obviously have an impact on the land use of the area, changing both agricultural and other undeveloped lands. The amount of such change and the rate of growth cannot be accurately predicted, but controlled development through use of zoning can be exercised by Monroe County and the City of Columbia.

Also, it can be stated that without this project, few of the transportation improvements discussed on page S-2 would appear to be feasible. The remaining 18 miles of I-255 would not get built and the East St. Louis area, which has been counting on this highway to help its dying economy, would continue on its road to bankruptcy.

UNAVOIDABLE ADVERSE EFFECTS

Construction of the proposed improvement will result in the removal of approximately 11 acres of wildlife habitat. Vegetation which now occupies the existing embankments will also be removed. Based on survey results an estimated 320 White-footed Mice, 29 Deer Mice, and 277 House Mice could be destroyed.

An estimated 34 Woodchucks and 4 beaver will be forced to relocate to a well drained area. A similar number of Eastern Cottontails (approximately 34) will possibly move to nearby forested areas or suitable herbaceous vegetation. However, most of them will fall victim to exposure; woodchuck dens they utilize during extremely low temperatures will be destroyed.

The removal of some timber and brushland in the area will affect the feeding and nesting habitats and result in the displacement of woodpeckers, warblers, vireos, sparrows, wrens, blackbirds and finches. The loss of the timber will also affect the hunting grounds of the hawks and owls that frequent the area.

Fish present in the area will move out of the area, and return after completion of construction. Due to the increased river siltation caused by construction, the benthic community will be altered somewhat.

Except for chlorides the quantity of most pollutants carried in the spray from highways after a rainfall will be small and of little consequence. The salt-laden spray would cause some damage to roadside vegetation. Therefore, the plans used for roadside landscaping should be selected from species which are least affected by salt (chlorides).

The proposed improvement will result in the removal of approximately 30 acres of land from potential agricultural productivity. As a consequence there will be a commensurate but temporary reduction in the Monroe County tax base. This will in turn cause a slight reduction in the tax revenue assigned to Community School District No. 4, County

Road District No. 5, the Columbia Rural Fire Protection District, the Monroe County General Fund and the Prairie DuPont Drainage and Levee District. The school will incur the largest loss, approximately \$160 per year.

The design of the proposed improvement as a limited access roadway in accordance with standards for highways on the Interstate System will cause the removal of two principal local road/arterial highway intersections in addition to the replacement of the direct highway access to farm property that fronts the existing roadway on the south with local road access. The removal of these direct connections will result in adverse travel for local residents. The transport of farm products will be effected in the same way.

SHORT TERM USE OF THE ENVIRONMENT/LONG TERM PRODUCTIVITY

Initially the removal of trees in the area will disrupt tree-dwelling avifauna; however, after construction is completed, the seeded banks will offer more habitat for ground-dwelling birds and small mammals. A borrow pit near the construction site could eventually become a source for recreational fishing and a feeding area and migratory stop-over for waterfowl.

In the short term the food chain will be enhanced by an increase in small mammals that are a food source for raptors and carnivores, and although construction will cause fish to move out of the immediate area, they will in time repopulate. Damage to the benthic community may or may not be permanent depending upon the ability of each variety to repopulate the area.

The most immediate effect of the proposed improvement would be the inconvenience caused to the people living in the surrounding area; however, there will be a gain in time for other pursuits made possible by the increased ease of travel in the bridge corridor, while the removal of the school bus routes from secondary roads will eliminate the hazards associated with loading and discharging students on busy 2 lane highways.

In the short term the proposed improvement would begin to correct the deficiency in the transportation network noted by regional planners, in that Monroe County now has only two-lane highways, and provide jobs that would require 1075 man-years of labor during the construction period. This is the equivalent of 180 year-round jobs for the six-year construction period. Additionally, 4125 man-years of off-site and indirect employment will result from the project.

In a larger sense the improvement would contribute to:

- . a better balance between Monroe County and other sections of the St. Louis metropolitan area in both economic and social development,
- . a change in life style with the development of Chapel Spring or some equivalent form of orderly suburbanization,
- . directing attention to the absence of a hospital in Monroe County, and
- . an improvement in the character of the industrial area located to the north.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

The irreversible or irretrievable commitment of resources due to the proposed action will include:

- . the transfer of approximately 30 acres of agricultural land that could generate an estimated \$8000 per year in products to public use as right of way for a controlled access highway.
- . the removal of an estimated 60 to 90 Cottonwoods, 15 to 20 Silver Maple trees, and 50 to 70 Green Ash trees, and the habitats they provide, from along the existing roadway.
- . the use of material for construction, in the form of concrete and steel for caissons, pilings, piers, bridge substructure and superstructure, and roadway pavement and shoulders, and
- . the man-hours lost due to traffic delays during construction.

MEASURES TO MINIMIZE HARM

The following were suggested in the DEIS as measures to minimize harm to the environment:

- . that earth-moving activities be carried out in the late spring or early summer, to allow wildlife a better opportunity to move to other areas;
- . that timber of a marketable size or value be harvested;
- . that embankments be seeded with grass which germinates and roots quickly (the normal seeding for all highway projects does this);

- . that one side of borrow pits in the bottoms be left fairly shallow, and allowed to vegetate with aquatic weeds for use as food for migrating waterfowl, turtles, beaver, and muskrats;
- . that bridge caissons be constructed so as to offer habitat for small crustaceans which could then be used as food for river fish.

Earth-moving activities are dependent on the time of the year that the contract is awarded, which in turn is dependent on various approvals, the receipt of awardable bids, and the availability of funds. To delay the project six to nine months to accommodate this suggestion is not in the best interest of the public.

Timber in the project area is neither of sufficient size or quantity to make harvesting economical.

Standard Specifications for highway seeding call for the use of quick-cover grasses.

It is expected that, if borrow pits are required, they will be obtained by the contractor on a lease basis, and he will dig the borrow pit in a manner acceptable to the owner. Such a situation as suggested may present health problems for which the owner would be liable. Consequently, this suggestion will not be implemented.

Any bridge caisson will offer a habitat for crustaceans, some types more than others, and a special design or specification for this purpose is not necessary.

This project is basically the replacement of a two-lane highway with a six-lane highway. The measures to minimize harm are the same as would be implemented on any other highway improvement, i.e., side ditches to control drainage, special techniques to control erosion, and landscaping to provide both visual effect and safety.

Archaeological preservation is not considered mitigation, and is documented in other sections of this EIS.

CHAPTER V COORDINATION

It was necessary during the preparation of this Environmental Impact Statement to contact numerous Federal, State and local agencies located in Illinois and Missouri for information and/or a preliminary review of the proposed action. It was made clear in each instance that the contact involved the environmental impact study of the proposed action. Several other agencies in Missouri were included in the review process when the limits of the improvement were located at Telegraph Road. As indicated earlier, the western terminus has been moved to the eastern limits of the Koch Road interchange which is approximately one mile east of the previously defined limits at Telegraph Road.

Various environmental categories are used to group these agencies in the listing that follows. In the interest of brevity, an agency is listed only once even though it may have been contacted for more than one reason.

Land Use and Zoning

East-West Gateway Coordinating Council (EWGCC)
Southwestern Illinois Metropolitan and Regional Planning
Commission (SIMRPC)
St. Louis County Planning Department
Monroe County Planning Commission

Socioeconomic

Illinois Department of Local Government Affairs
St. Louis Metropolitan Area Airport Authority
Kaskaskia River Port Development Authority
Metro-East Industrial Development Commission
Illinois Cooperative Crop Reporting Service
Illinois Department of Agriculture/U.S. Department of Agriculture
University of Illinois College of Agriculture
Cooperative Extension Service
Monroe County Agricultural Extension Advisor
Monroe County Clerk's Office
Illinois Department of Transportation, District 8
Missouri State Highway Commission District 6
Monroe County Road Department
St. Louis County Department of Highways and Traffic

Columbia Community School District No. 4
Columbia Rural Fire Protection District
Illinois Department of Conservation
 Office of Historical Preservation
 Historic Sites Survey
 Historic Landmarks Survey
Illinois Archeological Survey
Illinois Department of Transportation/Bureau of Environmental Science
Missouri State Park Board/Historical Survey and Planning Office
Monroe County Historical Society
St. Louis County Parks and Recreation Department

Air Quality

Illinois Environmental Protection Agency
 Air Pollution Control Division

Water Quality

Illinois Water Survey
Illinois Environmental Protection Agency
 Division of Water Pollution Control
Fish Lake Drainage and Levee District
Missouri Clean Water Commission

Geology and Hydrology (Flood Control)

U. S. Department of Agriculture/Soil Conservation Service
U. S. Coast Guard - St. Louis Office
U. S. Corps of Engineers - St. Louis District
Illinois Geologic Survey
Missouri Geologic Survey

When a request for information was involved these agencies provided factual data documented in most instances by various published and unpublished reports. In certain instances, when opinions were offered regarding the proposed action, benefits to Monroe County were cited with particular attention given to the orderly development of residential areas, reflected in the proposed new town development at Chapel Spring. A summary review of direct contacts made to obtain data is included in Appendix C. Copies of correspondence received from a number of other agencies is contained in Appendix D.

People contacted locally appeared to have no opposition to the proposed action. Residents living near the highway acknowledged that there would be a change in the access to the highway and an inconvenience to them, but this was considered to be more than offset by the anticipated reduction in traffic congestion, which they considered to be particularly bad on weekends. The expansion of the bridge and approach roadway was accepted as needed to accommodate existing and future growth in traffic flow. Although earlier newspaper accounts had linked the proposed action to the development of a new airport on the Illinois side of the river it was felt that this would only add to the need for the project.

On the federal level, a discussion of the impact of the proposed action with Mr. Allan J. Mueller, Wildlife Biologist for the U.S. Fish and Wildlife Service, failed to identify any significant environmental consequences. A review of available data by the Division of Long Range Planning of the Department of Conservation determined that there are no apparent conflicts between the proposed action as described and the Department's natural resource programs (see Illinois Department of Conservation letter dated December 15, 1975 in Appendix D).

The agencies not already cited that were included in the review when the limits of the improvement in Missouri were located at Telegraph Road are listed below.

Missouri Air Conservation Commission
Missouri Office of Administration
St. Louis County Police Department
Mehlville School District (Missouri)
Mehlville Fire Protection District (Missouri)

Coordination with the general public and minorities has been maintained thru their participation in public hearings held in August, 1962; November, 1964; and October, 1970. The comments received are contained in the public record of the proceedings which are available thru the Illinois Department of Transportation.

CHAPTER VI DISPOSITION OF COMMENTS

A list of the agencies, organizations and individuals that received a copy of the Draft Environmental Impact Statement (DEIS) is contained in the Summary. Following is a list of the agencies and organizations that have provided a written response to that distribution. This list of agencies is organized in two groups as follows:

- . Those providing substantive comments, thus requiring a response.
- . Those offering comments which do not require a response.

The agencies that submitted substantive comments are addressed first.

AGENCIES PROVIDING SUBSTANTIVE COMMENTS

Several agencies that received copies of the DEIS submitted substantive comments. These agencies are as follows:

U.S. Department of Housing and Urban Development
Soil Conservation Service of the U.S. Department of Agriculture
U.S. Department of the Interior
Advisory Council on Historic Preservation
U.S. Environmental Protection Agency
Office of the Secretary of Transportation
United States Coast Guard (U.S. Department of Transportation)
Missouri State Highway Commission
Illinois Environmental Protection Agency
East-West Gateway Coordinating Council
Southwestern Illinois Metropolitan and Regional Planning
Commission
Missouri Pacific Railroad Company

The comment or comments submitted by each of these agencies is addressed in the following sections in the order listed. Each letter contains in the margin a code to reference each comment and is followed directly by the responses to the comments contained in the letter.



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
300 SOUTH WACKER DRIVE, CHICAGO, ILLINOIS 60606

REGION V

H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Monroney:

U.S. DEPT. OF HOUSING AND URBAN DEVELOPMENT		
300 SOUTH WACKER DRIVE, CHICAGO, ILLINOIS 60606		
D. ST. ENGR.		
ASST. DIST. ENGR.		
March 16, 1976		
TO	FILE	NOT
ADM. SERV.		
CONS.		
ENGR.		
ENV. ENG.		
PLANN.		
TRAFIC		
LAND ACQ.		
CONFER WITH ME		
ALL BC		

IN REPLY REFER TO:
5D

This will serve to comment on the Draft Environmental Impact Statement regarding the proposed replacement of the Jefferson Barracks Bridge, in Monroe County, Illinois, submitted under cover of your letter dated January 19, 1976.

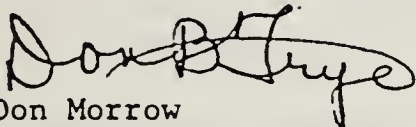
In the interest of including in your deliberations the merits of the subject undertaking, we offer the following observations:

- a) In view of the proximity of the Veterans Hospital at Jefferson Barracks to the project, a copy of the Draft may be referred to the Veterans Administration for comment.
- b) The Draft does not discuss the proposed bridge crossing in the Festus-Crystal City area and the impact it would have on the proposed bridge. The Jefferson County (Missouri)-Monroe County (Illinois) Bridge Commission may be consulted in this regard.
- c) The City of East St. Louis, Illinois, may be similarly consulted to determine what effect the project may have on its bridge spanning the Mississippi which was constructed with revenue bond proceeds.
- d) The Draft should be expanded to discuss the project's role in the beltway system and include a discussion of the beltway system itself.
- e) Where does this project rate in regard to regional and State transportation priority needs?
- f) Where does the project fit in the most recent comprehensive metropolitan transportation plan?
- g) The statement is made that surface water chloride concentrations in the area now range between 15 and 658 mg/l, which level exceeds the recognized standard of 250 mg/l; however, future applications of 2 tons per lane-mile per year are not expected to produce concentrations greater than 250 miligrams per liter. Since the number of lanes is to be increased from 2 to 6 clarification appears appropriate to better understand the results of road salting.

- h) Question is raised whether in the discussion treating with the present bridge's deficiencies, whether storms have in fact increased in intensity since the bridge's drainage system was designed.

We appreciate the opportunity to have provided comment.

Sincerely,



for Don Morrow
Regional Administrator

cc: Council on Environmental Quality
722 Jackson Place, N. W.
Washington, D. C. 20006

RESPONSES:

- a. Jefferson Barracks, its hospital and the Veterans Administration were included in the Missouri State Highway Commission review of the section located between the Koch Road interchange and the Telegraph Road interchange. The Veterans Administration is on the list of agencies to receive a copy of this Final EIS.
- b. Based on the Commission's current assessment, the need for the bridge in question depends on the future development of a major generator on each side of the Mississippi River, e.g., the proposed airport in Monroe County in Illinois and the Meramec Basin project in Jefferson County in Missouri. Also, the bridge in question has no official status in the Regional Transportation Plan for the area, and the recent completion of an East-West Gateway Coordinating Council review of the proposal requested by Jefferson County indicates that this status is not likely to change with the 1978 scheduled update of the Transportation Plan to the year 2000. Thus, the bridge would have no impact for a minimum of 20 years after the proposed replacement of the Jefferson Barracks bridge, and any estimate of its impact past the year 2000 would be tenuous at best.
- c. The Martin Luther King Bridge, owned by the City of East St. Louis, is at present under-utilized. With the I-55 (Poplar Street) bridge approaching capacity, this situation may change. Predicted traffic in the downtown area would exceed the combined capacity of all downtown bridges by 13 percent if this project is built, and by 35 percent if it is not, according to projections provided by East-West Gateway Coordinating Council. The City of East St. Louis did not receive a copy of this EIS, but project coordination with the City has been continuous.

- d. As proposed in the 1995 St. Louis Transportation Plan, the beltway system in the St. Louis area would be a circumferential freeway constructed to Interstate standards and designed to reduce travel time for interstate traffic and facilitate national defense movements; it would also serve to connect satellite metropolitan area communities with one another and to the central city via interchanges with other radial Interstate and arterial routes. The role of the Jefferson Barracks bridge in the beltway system and regional network is discussed in the text on page I-1 and again on pages I-2, I-8, I-17, I-23 and II-3.
- e. The Governor of Illinois, EWGCC, SWIMPAC and all communities in the area have indicated the proposed action has a very high priority in the State of Illinois (see pages I-9, I-10 and II-3). Funds have been made available to begin construction in 1977.
- f. It has been a part of the EWGCC plans ever since the agency was created. The relationship between this project and its fit in the most recent comprehensive metropolitan transportation plan is best exhibited in Figures 13, 14 and 16 and on page II-5 in the text.
- g. To clarify this point, the text on pages IV-4 and IV-5 has been modified.
- h. This can also be stated another way as follows: The side ditches that are located along the existing approach roads to carry storm water runoff do not have the capacity to handle the current design year storm cited on page I-6. This condition would be corrected in the proposed action.

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P.O. Box 678, Champaign, Illinois 61820

March 15, 1976

Mr. H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Monroney:

The draft environmental impact statement for the proposed improvement to Interstate Route 255, J. B. Bridge to North of Columbia, Monroe County, Illinois, dated January 19, 1976, that was submitted to the U. S. Department of Agriculture, Washington, D.C., has been referred to this office for review and comment.

1. There are drainage structures proposed at major water courses in order to maintain the existing drainage pattern which will be located at Fish Lake and Hill Lake Creek. No doubt there will be road ditches to provide drainage for the road run-off. If these road ditches could be constructed deeper and still provide drainage to either Fish Lake or Hill Lake Creek, they could serve a dual purpose by providing an outlet for the agricultural drainage from adjacent fields. This may also provide additional road fill material and reduce the need for borrow pits. This could result in increased average yield from the low areas which normally drowned out. If there are any Type 3, 4 and 5 class wetlands they should be preserved.
2. A soil map of the area would be useful in evaluating the impact of the project. This information is available at the Soil Conservation Service office in Waterloo, Illinois.
3. The borrow pit referred to on Page IV-14 should be constructed for multi-purpose use such as fishing and wildlife habitat. Consideration should be given to special wildlife plantings as an alternative to allowing the area to return to natural vegetation.

With the proposed improvements, demands for land use changes from agriculture to urban and industrial development will require a strong zoning board to maintain the good agricultural lands. The loss of 30 acres of agricultural land is recognized in the statement, however, we are concerned with the continued and accumulative effects of using agricultural land for other uses of an irreversible nature.

If you have questions relating to the soils, drainage, erosion control practices, vegetative or woody plantings, or wildlife habitat plantings,



H. W. Monroney, 3/15/76

2.

don't hesitate to get in touch with Mr. Gary L. Wood, District Conservationist, Soil Conservation Service, Route #156W, Route #1, Waterloo, Illinois 62298, telephone 618-939-7712.

We appreciate the opportunity to review and comment on the proposed project.

Sincerely,

Robert H. Edleman, Acting

Daniel E. Holmes
State Conservationist

RESPONSES:

1. The roadway side ditches are to be constructed in accordance with the State of Illinois Drainage Code which requires that they be provided in the manner needed to maintain the established drainage pattern in the area. The depth of these ditches could, if necessary, be adjusted to accommodate any plans of an appropriate drainage or levee district. Also there are no Type 3, 4 and 5 class wetlands in the project area according to Mr. Allen J. Mueller, Wildlife Biologist for the U.S. Fish and Wildlife Service.
2. The soil in the project area is of the type classified in the Riley-Bowdre-Darwin-Cairo-Belknap Group, and the text on Page 1-11, paragraph 5 has been modified accordingly.
3. Borrow pits will be located on land held in private ownership. Only in rare situations would it become necessary for the State to purchase or condemn for a borrow pit. An arrangement could be made with the Department of Conservation for them to take over operation and maintenance of such an area for public use (see page I-7).



United States Department of the Interior

OFFICE OF THE SECRETARY
NORTH CENTRAL REGION
230 S. DEARBORN STREET, 32nd FLOOR
CHICAGO, ILLINOIS 60604

ER-76/60

March 10, 1976

DIV. ENR.	✓
ASST. D.E.	✓
ADMIN. SERV.	
PLANNING	
DE. ENR.	
ASST. D.E.	
SAFETY	
ENCL. SERV.	✓
E.O. SER.	
DIST. A.	
DIST. B.	
DIST. C.	✓
DIST. D.	
ROW OFC	
AUDIT DIV.	
BMCS	
LIBRARY	

Mr. Jay Miller, Division Administrator
Federal Highway Administration
3095 East Stevenson Drive
Springfield, Illinois 62707

Dear Mr. Miller:

This is in response to the request for Department of the Interior's comments on the draft environmental statement for Interstate Route 255 (Jefferson Barracks Bridge and Approach Road), Monroe County, Illinois, and St. Louis County, Missouri.

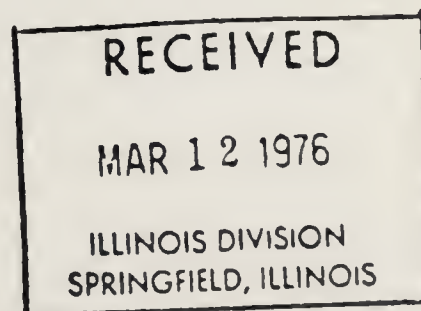
General Comments

The statement is generally adequate as it relates to our interests. The graphics are particularly fine.

Specific Comments

Description of Proposed Action and Its Surroundings

1. Extensive fill will evidently be required as shown on figure 5 and as indicated by the fact that the new embankment will be at least four feet higher than the existing embankment (P. I-6, Paragraph 3). However, no mention is made of proposed sources or volume of fill material required for the embankments.
2. The fourth paragraph on page I-6 should indicate the type of drainage structures (bridges, box culverts, etc.) to be constructed at Fish Lake and Hill Lake Creek and also any effects this drainage structure might have on the water level of Fish Lake. This paragraph should also indicate whether or not any channel relocations might be necessary.
3. In the third paragraph, third sentence on page I-12, the low flow for August 1973 - October 1974 should be 74,800 cfs, the high should be 584,000 cfs, and the mean should be 247,000 cfs. In the fourth paragraph, last sentence, the peak should be 852,000 cfs, 65 percent of record flow, and 43.2 feet for the stage.



Probable Impact of Proposed Action on the Environment

4. There is a petroleum terminal facility immediately south of the present highway at the west end of the Jefferson Barracks Bridge. At this facility, storage tanks are about 200 feet from the existing highway. We believe it should be noted in the fifth paragraph on page IV-9 or elsewhere, if more appropriate, whether or not the proposed highway improvement will interfere with the operations of the oil terminal during construction and/or after project completion.

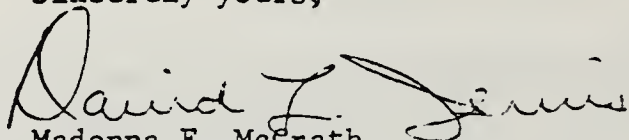
We are pleased to note that the project impacts on cultural resources have been evaluated in consultation with the State Historic Preservation Officers for Missouri (Appendix A) and Illinois (Appendices B and F) and that it has been determined that this project will not affect cultural resources adversely.

5. Although this conclusion is stated on page S-4 of the Summary, we recommend that it also be presented in the main body of the statement in the chapter on environmental impact (Chapter IV) with the comment that no historic or archaeological properties, including sites eligible for or listed on the National Register of Historic Places would be affected by the proposed action.
6. We suggest that the final statement also indicate what procedures will be followed in the event that previously unknown archaeological resources are encountered during project development.

Short-Term Use of the Environment/Long-Term Productivity

7. Relative to the first paragraph in this section on page IV-14, the final statement should indicate whether or not arrangements will be made to assure public access to the borrow pit for recreational fishing.

Sincerely yours,

for 
Madonna F. McGrath
Acting Special Assistant
to the Secretary

cc: H. W. Monroney
Dist. Engineer
Illinois DOT

RESPONSES:

1. The new roadway embankment in areas west of the levee will be higher; however, in some sections located east of the levee, the embankment will be lower than the current roadway elevation. Appropriate consideration will be given to using existing quarries or hydraulic fill. However, the decision as to what borrow sites to use will be made by the contractor who is awarded the contract for construction (see revised text, page I-7).
2. Studies done to date indicate box culverts designed to handle a 50-year frequency storm would be used; however, a final decision on the type and size of structure to be used would be based on further detailed hydraulic studies. The construction of these structures is controlled by the State of Illinois Drainage Code which forbids the alteration of the existing drainage pattern including the characteristic water levels of the creeks and lakes in the area. Any deviations including channel relocations must necessarily conform to the Master Plan of the appropriate drainage and levee district.
3. Corrections have been made on page I-12 accordingly.
4. Access to this facility will be provided in the Koch Road interchange which is outside the revised limits of this project.
5. The conclusion has been modified to reflect the final results of a recently completed archeological survey, see pages IV-12, IV-12a, and IV-12b in the text and page S-4 in the Summary.
6. The text on page IV-7 has been revised accordingly.
7. The response given to the third comment made by the Soil Conservation Service, U.S. Department of Agriculture, also applies here (see page VI-6).

Advisory Council
On Historic Preservation

1522 K Street N.W.
Washington, D.C. 20005

Mr. Jay Miller
District Engineer
Federal Highway Administration
P.O. Box 3307
Springfield, Illinois 62764

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March 25, 1976

Dear Mr. Miller:

Thank you for your request of January 19, 1976 for comments on the environmental statement for Interstate Route 255, Jefferson Barracks Bridge to North of Columbia, Monroe County, Illinois. Pursuant to our responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969 and the Council's "Procedures for the Protection of Historic and Culcural Properties" (36 C.F.R. Part 800), we have determined that:

with the exception of your adequately documented determination of no effect on the Lunsford-Pulcher Archeological Site, a property included in the National Register of Historic Places, your draft environmental statement does not contain sufficient information concerning archeological resources for review purposes. We understand that the Eastern one-third of the corridor contains archeological sites and that a phase 2 archeological survey and testing is ongoing in that area. We recommend that the final environmental statement demonstrate the following:

Compliance with Executive Order 11593 "Protection and Enhancement of the cultural environment:

1. A property eligible for inclusion in the National Register of Historic Places is not located within the area of environmental impact, and the undertaking will not affect any such property. In making this determination, the Council requires evidence of consultation with the appropriate State Historic Preservation Officer and evidence of an effort to ensure the identification of such properties. The Council recommends that comments of the State Historic Preservation Officer be included in the final environmental statement.
2. A property eligible for inclusion in the National Register is located within the area of environmental impact, and the undertaking will or will not affect any such property. In cases where there will be an effect, the final environmental statement should contain

The Council is an independent unit of the Executive Branch of the Federal Government charged by the Act of October 15, 1966 to advise the President and Congress in the field of Historic Preservation.

(Page 2)

evidence of compliance with the Executive Order through the Council's "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800).

We would like to receive a copy of the final environmental statement.

Should you have any questions on these comments or require any additional assistance, please contact Charles Spilker of the Advisory Council staff 202/254-3380.

Sincerely yours,

SIGNED

John D. McDermott
Director, Office of Review and
Compliance

RESPONSE:

See revised text on pages IV-12, IV-12a, and IV-12b, and Appendix A.



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V

230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604



*Copy to Mr. Monroney
3-29-76
AL*

D. L. ENCEP	
ACST. DIST. RE: 76-004-421	
D-FHW-F40049-IL	
TO: _____	FILE _____
MAR 22 1976	
LAND USE	
TRAFFIC	
CONFER WITH ME	
ALL BC	

Mr. H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Monroney:

1. We have completed our review of the Draft Environmental Impact Statement (EIS) for Interstate Route 255, Jefferson Barracks Bridge to North of Columbia, Monroe County/Illinois and St. Louis County/Missouri which was transmitted with your letter of January 19, 1976. We have no major environmental objections to the proposed project as described in the Draft EIS but request additional information to completely assess the total project impact. We offer the following comments for your use in preparing the Final EIS.

AIR QUALITY IMPACTS

2. It does not appear that the proposed project will cause a violation in National Ambient Air Quality Standards for carbon monoxide; however, we have several comments regarding some technical aspects of the air quality analysis. Emission factors used in the Draft EIS were those issued by the U. S. EPA in 1973 and which now have been replaced by "AP-42, Supplement No. 5 for Compilation of Air Pollutant Emission Factors" (Second Edition) April, 1975 (draft) and December, 1975 (final). While we have no serious objections on the use of these emission factors for this transportation facility, future analyses should reflect the Supplement's factors.
3. Background carbon monoxide concentrations should be determined for 1985 and 1995. These are the CO levels, calculated from existing or recent CO levels, which are added to the concentrations calculated by the dispersion models. The sum should then be compared directly to the National Ambient Air Quality Standards. At least six generally accepted methods for determining background CO levels are available:
 - a. Rural Areas - baseline of 1 ppm
 - b. Data from representative monitoring stations
 - c. Calibrated Meso-Models
 - d. Mathematical Techniques

- e. Information from other cities
- f. Field Studies - Monitoring

The appropriate technique to use for a particular project is a function of the location of the proposed facility with respect to large urban areas with critical air quality problems, and the availability and quality of existing and historical air quality data. On this particular project only, monitoring studies to determine background levels should not be necessary due to the rural character of the area through which it is proposed for construction, and due to the lack of existing and proposed sensitive receptors in the area transversed by the project. The above cited methods for determining background levels are elaborated upon in "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources," published by U.S. EPA, January, 1975.

4. The potential impacts which the proposed major airport near Columbia, Illinois would have on the air quality near the subject facility were not adequately discussed. Specifically, there are three possible sources of impacts which should be addressed: the impacts of aircraft emissions on CO levels in the project area; the direct impact caused by increases in traffic on the proposed facility leading to the airport; and the impacts associated with increased industrial development which could occur near the airport. In addition, it should be explained if traffic volume estimates for the design year (1996) included that which could be generated by the airport. If airport traffic was not anticipated, the ability of the proposed roadway to accommodate increased traffic should be addressed. If airport traffic was anticipated, any design changes appropriate in view of a reduced traffic volume should be explained if the airport is not constructed.
5. An apparent discrepancy was found between the air quality analysis in the text (Chapter IV) and the air quality analysis in Appendix C. While the text summarizes impacts of the subject facility, the Appendix discusses the CO impacts along proposed I-255 from FAP Route 410 to FAI Routes 55 and 70, North. While we have based our review on the Air Quality discussion in Chapter IV, other information presented in the Draft EIS, and the procedures contained in the Illinois Department of Transportation Air Quality Manual, this discrepancy should be noted and corrected.

WATER QUALITY IMPACTS

6. It was indicated that aquatic habitats downstream from the proposed bridge are somewhat better than that in the immediate project area. This fact implies that measures to prohibit entrance of toxic materials and to minimize erosion impacts on the river are especially warranted. We suggest that the Illinois Department of Conservation be contacted to help in developing a construction schedule which would minimize impacts on spawning or migrating activities occurring in the river. Since it is anticipated that trucks hauling petroleum products will frequently use the J. B. Bridge, a contingency plan for potential oil spills should be developed.
7. The U.S. Army Corps of Engineer's, Rock Island District, should be contacted with regard to the applicability of a Section 404 permit for fill in navigable waters; their determination should be included in the Final EIS. We are currently reviewing a Section 9 permit application from the Coast Guard for this bridge.

NOISE IMPACTS

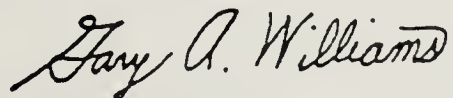
8. It does not appear that noise generated from the Illinois portion of the proposed facility will exceed standards recommended by the Federal Highway Administration. However, a noise analysis similar to that conducted for the Illinois portion of the roadway should also be provided for the Missouri side of the project. The information on existing noise levels presented in Appendix A does not constitute an adequate analysis. Noise level predictions for a worst case situation should be made and if it appears standards will be exceeded, potential mitigation measures should be discussed. This analysis should include the residential area south of the proposed facility and west of the I-270 interchange.
9. Local zoning and planning officials should be notified of the setback restrictions mentioned on page IV-3 which would be required to ensure compatibility with FHWA noise standards. It is indicated in the EIS that noise from construction activities could create a significant impact for mobile homes south of the proposed improvement. Therefore, we suggest measures to mitigate construction noise - such as restrictive scheduling for use of noisy equipment (time of day, number to be used at the same time), contract specifications for least noisy equipment, etc. - be considered.

OTHER

10. We commend plans to develop the borrow pit into a source of recreational and wildlife value and suggest that these plans be coordinated with the Illinois Department of Conservation. The potential borrow site should be identified on a map.
11. The removal of 50 to 70 trees along highway right-of-way may warrant replacement; plans for revegetation of the roadside should be coordinated with the Department of Conservation. The section of the EIS on "Measures to Minimize Harm" makes several valuable suggestions with regard to the proposed project's borrow pit, bridge caissons, and drainage. The Final EIS should indicate a definite commitment for actual incorporation of these ideas into project plans.

As indicated in the above discussion and in accordance with EPA procedures, we have classified the proposed project as LO, lack of objection, and rated the Draft EIS as Category 2, insufficient information. In view of the additional information we have requested and the potential for adverse environmental impacts associated with a project of this scope, we do not recommend that the Final EIS be converted to a negative declaration. Please send us two copies of the Final EIS when it is submitted to the Council on Environmental Quality. Feel free to contact me at 312-353-5756 if you have any questions regarding our comments.

Sincerely yours,



Gary A. Williams
Chief

Environmental Review Section

RESPONSES:

1. The I-255 projects (of which this is one) were the subject of discussion in a meeting on May 20, 1976 between Carlton Nash of USEPA and R. B. Kissinger and L. F. Vik of IDOT. USEPA comments of March 23, 1976 were satisfactorily resolved.
2. Future analyses will reflect revised factors.
3. A review of the USEPA publication "Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources", January 1975, indicates several methods to account for "background" concentrations of carbon monoxide (CO). In this instance, the setting is rural and there are no sensitive receptors, parking lots, or industrial sources, existing or proposed, located within one-quarter mile of the facility. Thus, the guidelines referred to above suggest the addition of 1 ppm CO (8-hour) and 5 ppm CO (1-hour) as natural background levels. The table in Chapter IV has been revised accordingly to include these background concentrations. The table has also been revised to include the emission factors cited in USEPA publication AP-42, Supplement 5.
4. The terminal complex which is the focus of all but a few airport ground operations, is generally where the air pollution generated by an airport is highest. The boundary of the proposed airport, as it is currently planned, that is nearest the proposed Jefferson Barracks bridge and highway improvement, is some six air miles away. As a result, the location of the highest pollution levels will be more than six miles from the proposed action, and therefore, it is unlikely that the pollution from ground or air operations generated by this airport, should it be constructed, will significantly affect the background levels at the site of the proposed action. This conclusion would also apply to the industrial development that is expected to occur near the airport.

The forecast of future traffic expected to use this section of roadway does not include the traffic demand that would be generated by the Columbia-Waterloo airport, should it be built. However, the bridge as planned, under normal conditions, is capable of handling a 50 percent increase over the design year traffic estimate of 48,169 vehicles per day, while roadway volumes would need to triple by 1990 to produce emissions that could exceed National Standards.

It should also be noted that the environmental impact statement for this proposed airport must address these and other concerns including the impacts associated with any industrial development that would take place near the airport.

5. To prevent any further confusion, the estimates of future carbon monoxide concentrations for U.S. Route 50 between Illinois Route 3 and the west end of the Jefferson Barracks bridge for the "worst probable" conditions under the no-build alternative have been added to the table in Chapter IV and the remaining contents of Appendix C have been removed from the statement.
6. Article 107.30 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted July 1, 1976 contains the following statement:

107.30 Protection of Streams, Lakes and Reservoirs. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, and reservoirs with fuels, oils, bitumens, calcium chloride, or other harmful materials. He shall conduct and schedule his operations so as to avoid or minimize siltation of streams, lakes and reservoirs. Where, in the opinion of the Engineer, the land has a high potential for erosion, the areas that can be exposed by construction operations at any one time will be subject to approval by the Engineer and the duration of the exposure of the uncompleted construction to the elements shall be as short as practicable. Erosion control features shall be constructed concurrently with other work as directed by the Engineer.

These provisions are further detailed under a Special Provision for Temporary Water Pollution Control which is included in Appendix B (see also revised text on page IV-5).
7. An application for a Section 404 permit has been filed with the U.S. Army Corps of Engineers, St. Louis District.
8. The Missouri based section of roadway addressed in Appendix A of the DEIS is now under contract for construction and no longer is within the limits of the proposed action. Thus, there are no sensitive receptors within the 70 dbA noise level that would be generated by design year traffic volumes using the proposed improvement.
9. Local zoning and planning agencies have been notified accordingly. The present state of the art will be the primary restriction on measures that would be employed to mitigate the noise of construction equipment.
10. The responses given to the third comment made by the Soil Conservation Service and the first comment made by the Department of Interior also apply here (see page VI-6 and VI-9).
11. See comment #5 above and revised text on page IV-15.

UNITED STATES GOVERNMENT

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

Memorandum

DATE 15 MAR 1976

SUBJECT: Draft Environmental Impact Statement:
Interstate 255, Monroe County, Illinois,
FHWA-ILL-EIS-75-03-D

In reply
refer to

FROM: Assistant Secretary for Environment,
Safety, and Consumer Affairs

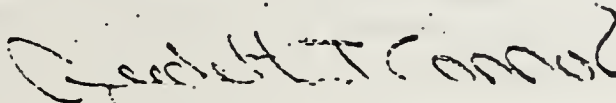
TO: Chief, Environmental Programs Division
Federal Highway Administration

We have completed review of the draft environmental impact statement (EIS) for the proposed new highway and Mississippi River crossing, and have the following comments:

1. Bridge. The final EIS should reflect recent consultation with the U.S. Coast Guard concerning the required bridge permit. Also, it would be desirable to include the drainage design of the bridge, with attention given to preventing petroleum or chemical spills and highway salts from entering the river. If the current Jefferson Barracks Bridge provides for pedestrian and bicycle river crossing, provision for such travel should be considered in the design of the new bridge. Discussion of this ought to be provided in the final EIS.
2. Air Quality. The table on page IV-1 does not entirely agree with the data presented in Appendix C. The air quality analysis should present the highway impact as an addition to the ambient air quality levels for a proper evaluation of conformity with Federal standards and consistency with the state implementation plan.
3. Missouri Bridge Approach. The EIS should consider impacts for the entire project on both the Missouri and the Illinois sides of the river. For example, the Air Quality Analysis (Appendix C) should not exclude portions of the project in Missouri. In this regard, the separate "Environmental Assessment" (Appendix A) (with a negative declaration) for the Missouri part of the project does

not seem to be appropriate inasmuch as the proposed action as identified in the summary and the project description includes the portions in both states. A negative declaration, in any case, would not appear to be appropriate for the Missouri portion of the project since that segment appears to be integrally related to the bridge proposal and does not seem to have independent utility. Thus the final EIS should cover the entire project.

We appreciate the opportunity to review the draft EIS, and we look forward to receiving the final EIS including comments received on the draft.


Judith T. Connor

RESPONSES:

1. An application for a Section 9 permit has been filed with the U.S. Coast Guard and is pending. The use of scuppers and downspouts in the design for bridge drainage is expected, within certain limitations, to ameliorate the pollution that may be created by accidental petroleum or chemical spills and the application of deicing salts. The existing Jefferson Barracks bridge was designed for vehicles only and the design of the new bridge will follow that same philosophy.
2. The response to comment #5 from the USEPA also applies here (see page VI-17).
3. The Missouri based section of roadway addressed in Appendix A of the DEIS is now under contract for construction and no longer is within the limits of the proposed action. However, analysis by Missouri supports the earlier findings regarding the roadway impact on air quality.



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS
COMMANDER (obR)
SECOND COAST GUARD DISTRICT
FEDERAL BLDG
1520 MARKET ST
ST LOUIS MO 63103
Tel. 314-425-4607

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19 February 1976

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Mr. Glen H. Sawyer
District Planning Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Re: Draft Environmental Impact Statement
Interstate Route 255
J. B. Bridge to North of Columbia
Monroe County

Dear Mr. Sawyer:

Thank you for your letter of 19 January 1976 inviting our comments on the Draft Environmental Impact Statement for the referenced project.

The General Bridge Act of 1946 requires that the location and plans for bridges over the navigable waters of the United States must be approved by the Commandant, U. S. Coast Guard, prior to commencing construction. We now have under consideration an application for a Coast Guard Permit for these proposed bridges from Mr. Thomas R. Bright, Engineer of Design, Illinois Department of Transportation.

We will need two copies of the approved Final Environmental Impact Statement and the date it was filed with the Council on Environmental Quality before we can completely process Mr. Bright's application. We have the following comments on the Draft Environmental Impact Statement:

a. Page 1-5. The last paragraph states that the tied-arch span over the navigation channel will provide a horizontal clearance of 805 feet. We believe that this is a typographical error because the plans submitted to us call for a horizontal clearance of 850 feet.

b. Page 1-5. The last paragraph indicates that certain minimum vertical clearance requirements for bridges have been established in this reach of the river. This should be deleted because the Coast Guard has not officially established vertical guide clearances for this reach of the Upper Mississippi River.

Re: Draft Environmental Impact Statement, Interstate Route 255
J. B. Bridge to North of Columbia, Monroe County

c. Page IV-12. The construction section should be broadened to address the probable methods of construction of the new bridges and the demolition of the existing bridge and evaluate their impact on navigation. We believe that construction of the piers, erection of the tied-arch span and demolition of the old bridge will have an impact on the flow of river traffic.

d. Appendix F. A copy of Commander, Second Coast Guard District Public Notice No. 2-140 and selected correspondence with the Illinois Department of Transportation and the Federal Highway Administration are included in this section. The Notice and correspondence pertains to an extension of time for a Coast Guard Bridge Permit which was voided by the application now under consideration. Consequently, all references to the previous Coast Guard Permit and its amendments should be deleted.

The opportunity to comment on this project is appreciated.

Sincerely,



JAMES C. IRWIN
Captain, U. S. Coast Guard
Chief, Operations Division

By direction of the District Commander

Copy to:

COMDT (G-WEP)

Office of Environmental Affairs (TES)

Office of Secretary of Transportation, Region VII

DOT Representative, CEQ (5 cys)

Mr. Bright, Illinois DOT

Office of Secretary of Transportation

RESPONSES:

a. & b. The contents of page I-5 have been corrected as suggested.

c. Article 107.13 of the Illinois Department of Transportation Standard Specifications states as follows:

107.13 Bridges over Navigable Waters. All work on navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and that the existing navigable depths will not be impaired except as allowed by permit issued by the authority having jurisdiction over the navigable waters.

d. The contents of Appendix F in the DEIS has been modified as suggested and reclassified as Appendix D in this FEIS.

A. C. RILEY, *Member*
701 Davis
New Madrid 63869

MISSOURI
STATE HIGHWAY COMMISSION

ROBERT N. HUNTER, *Chief Engineer*

RECEIVED
EXECUTIVE OFFICE OF JUDGE A. RING, Chief Counsel

MAR 15 11 07 AM '73

L. V. MCLAUGHLIN, Ass't. Chief Engr

DEPT. OF
TRANSPORTATION

MRS. IRENE WOLLENBERG, *Secretary*



Jefferson City, Missouri 6510
Telephone (314) 751-2551

March 12, 1976

SURVEYS AND PLANS

Route I-270, St. Louis County, Missouri
Job No. 6-I-270-36

Route I-255, Monroe County, Illinois
Illinois Job No. P-98-120-74

File No. 853.05

Draft Environmental Impact Statement

~~Mr. H. W. Morrow
Mr. Harry R. Hanley, Director
Division of Highways
Department of Transportation
Transportation Administration Building
2300 South Dirksen Parkway
Springfield, Illinois 62764~~

Dear Mr. Hanley:

The following is in response to the Draft Environmental Impact Statement on the above mentioned improvement transmitted by a copy of Mr. H. W. Monroney's letter of January 19, 1976.

On page II-5 under the topic Airport Development, the Draft Environmental Impact Statement indicates a new metropolitan airport will be constructed at Columbia-Waterloo site. We would recommend this section be revised to indicate that the Columbia-Waterloo site is one of several sites being considered for construction of a new metropolitan St. Louis airport and the remainder of this section be developed accordingly.

We concur with the remainder of the Draft Environmental Impact Statement as prepared.

Very truly yours,

Robert N. Dexter
Chief Engineer

DIV. OF HIGHWAYS ILL. DEPT. OF TRANS.		
ROUTE	TO	DATE
	THAWLEY	
	INDIANA	
	INDIANA	

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TO		FILE
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LOCAL COS.		
MAINT.		
MATLS.		
PLAN.		
LAND ACQ.		
TRAFFIC		
CONFER WITH ME		
ALL BC		

RESPONSE:

Secretary of Transportation Coleman approved the Columbia-Waterloo, Illinois location as the site of the new St. Louis Metropolitan Area airport in September, 1976 (see page II-5).

Illinois

Environmental Protection Agency

2200 Churchill Road, Springfield, Illinois 62706

Phone: 217/782-1684

Richard H. Briceland, Director



BUREAU OF ENVIRONMENTAL SCIENCE		
RECEIVED:	2-11-76	
DECEASED:	[Signature]	
SECTION	IN	TYPE
Envir. Eng.		
Pol. & Plan.		
Rev. & Coord.		
	1034	2/10
[Signature]		

February 10, 1976

Mr. Earl Bowman
Department of Transportation
Planning, Progress and
Environmental Science
2300 South Dirksen Parkway, Room 218
Springfield, Illinois 62706

Subject: I-255's Jefferson Barracks Bridge Project-Draft EIS

Dear Earl:

In reference to the comments made February 10, 1976, the Division of Noise Pollution Control noted that, while the proposed improvement would not create a significant impact, appropriate considerations should be made concerning noise level attenuation affecting Jefferson Barracks Hospital and the Beasley Elementary School. Approximate locations of these facilities may pose some noise pollution concerns which require mitigation.

Sincerely,

Robert P. Clarke
Environmental Programs

RPC/ma

RESPONSE:

The Beasley School is no longer within the revised limits of this project, and the results of the analysis of the noise impact of the project indicate that it will not affect the Jefferson Barracks hospital (See Table 4).

Illinois

Richard H. Briceland, Director



Environmental Protection Agency



2200 Churchill Road, Springfield, Illinois 62706

Telephone: 217/782-1684

BUREAU OF ENVIRONMENTAL SCIENCE		
RECEIVED:	2-11-76	
BUREAU CHIEF:	H.B.	
SECTION	INFO	ACTION
Envir. Eng.		
Pol. & Procd.		
Rev. & Coord.		✓
<i>Null</i>		

February 10, 1976

Mr. Earl Bowman
Illinois Department of Transportation
Planning, Progress and Environmental Science
2300 South Dirksen Parkway, Room 218
Springfield, Illinois 62706

Dear Earl:

The Agency has reviewed the Draft Environmental Impact Statement for Project I-255-9(6)0 Section 67B-EIS (J.B. Bridge) pursuant to provisions of the National Environmental Policy Act. Based upon the information provided in the document, we have no adverse comments.

It is assumed, the project construction and operation will be conducted in conformance with applicable rules and regulations. Should major modifications in the project or its impact occur, please advise.

Sincerely,

Robert P. Clarke
Environmental Programs

RPC/ma

RESPONSE:

The stated assumption is correct.



EAST-WEST GATEWAY COORDINATING COUNCIL

112 NORTH FOURTH STREET, PIERCE BUILDING, SUITE 1200
ST. LOUIS, MISSOURI 63102
314 421-4220 618 274-2750

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State Highway Commission

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Department of Transportation

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Missouri Office
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EXECUTIVE DIRECTOR
Alan C. Richter

MEMO TO: BOARD OF DIRECTORS

FROM: COUNCIL STAFF

SUBJECT: EWGCC COMMENTS ON DRAFT ENVIRONMENTAL IMPACT
STATEMENT FOR I-270 (FAI-255) FROM THE WEST
END OF THE JEFFERSON BARRACKS BRIDGE IN
ST. LOUIS COUNTY EASTWARD TO THE ILLINOIS
CENTRAL GULF RAILROAD IN MONROE COUNTY

DATE: JANUARY 26, 1976

In response to a request by the Illinois Department of Transportation, Council staff has prepared for Board endorsement comments and suggestions to be addressed in the final version of the environmental impact statement regarding I-270 (FAI-255) from the west end of the Jefferson Barracks Bridge in St. Louis County eastward to the Illinois Central Gulf Railroad in Monroe County.

RECOMMENDATION: Staff recommends Board endorsement of the attached comments and suggestions to be addressed by the Illinois Department of Transportation in their preparation of the final version of the environmental impact statement regarding I-270 (FAI-255) from the west end of the Jefferson Barracks Bridge in St. Louis County eastward to the Illinois Central Gulf Railroad in Monroe County.

COUNCIL COMMENTS ON THE DRAFT EIS FOR I-270 (FAI-255) FROM THE JEFFERSON BARRACKS BRIDGE IN ST. LOUIS COUNTY TO THE ILLINOIS CENTRAL GULF RAILROAD IN MONROE COUNTY

- A. Do the population projections noted on page II-2 of the Draft EIS reflect the Council's recently adopted lower figures?
- B. Will the construction of the proposed "outer belt" in Illinois affect the capacity of the lanes and ramps proposed for FAI-255?
- C. Has the site of a major air carrier facility been taken into account in the vehicle volumes projected for FAI-255?



SOUTHWESTERN ILLINOIS

metropolitan and regional

PLANNING COMMISSION

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Serving Madison, St. Clair, Monroe, Randolph, Bond, Washington and Clinton Counties
 203 West Main Street ☆ Collinsville, Illinois 62234 ☆ (618) 344-4250

February 6, 1976

Mr. Harold Monroney
 District Engineer
 Illinois Department
 of Transportation
 9300 St. Clair Avenue
 P.O. Box 838
 East St. Louis, IL 62203

Re: FAI Route 255 (Bridge Section) Draft EIS Comments

Dear Mr. Monroney:

The staff of the Southwestern Illinois Metropolitan and Regional Planning Commission has reviewed the Draft EIS and offer the comments which follow. It should be noted that none of the comments given should be considered as being negative in terms of the need or desirability of the project. The construction of this project is considered to be a necessity to meet the goals of the Southwestern Illinois region.

1. We concur with your assessment that this segment of FAI-255 should be considered independently from the remaining portion of FAI-255. The need for this facility is not solely dependent on the northern segment of FAI-255, but should be considered as an important individual link in a larger network of highways.
2. It is indicated that the "Outer Belt" is not presently included in the Transportation Plan for the area. Although this statement is qualified later in the report, it should be noted that this development-inducing freeway is included in the EWGCC 1995 Long-Range Highway Plan and in SIMAPC's Land Use 2000.
3. It should be stated that the reason some land acquisition has occurred prior to EIS approval is because the project had been previously approved by FHWA before EIS regulations became effective.
4. There is no mention of the fact that extensive fill placement had been accomplished almost ten years ago because of expected soil settlement. The fill placement made years in advance of construction was wisely done to avoid post construction settlement problems.

Mr. Harold Monroney
February 6, 1976
Page Two

5. The source of additional borrow material is a special concern. The location of borrow site is usually left to the discretion of the contractor, subject only to the quality of the material. Unfortunately, under these circumstances the bluff face is frequently chosen for these borrow sites. The result is a visible scar on this prominent area feature.
6. It is indicated that no faulting occurs within ten miles of the project. The Dupu anticline starts to the north of the project area and extends south through the project area and through Waterloo to Red Bud. The last noted seismic activity occurred in the 1940's with an earthquake centered in Monroe County. Reference can be found in SIMAPC's Population and Economy, IDOT's FAP Route 410 Geotechnical Study, and from the Illinois State Geological Survey.
7. There is no mention of any effect on river navigation either during construction or after. The questions which should be addressed include:

Will navigation be impeded while new piers are under construction?

Will the demolition of the existing bridge impede or stop river navigation?

- 7a. In light of present low water conditions and sandbar build-up in the vicinity of the J.B. Bridge, will the new span length with resulting lower water velocity cause future navigation problems?
8. There is presently a request pending in Monroe County to rezone 1800 acres immediately north and south of this project from agriculture to industrial. Discounting the pros and cons of this action, if in fact the request is granted, the problem of access becomes apparent. The question is: If through private capital investment, the developers desire to construct an interchange at the levee road at some future date, is it physically possible to do so?

Mr. Harold Monroney
February 6, 1976
Page Three

9. While the Kaskaskia Regional Port District was mentioned in the report, this agency was not included in the list of agencies requested to comment on the project. The Port District has extensive authority regarding port development, including the issuance of permits for river installations. This area may have significant potential for port-related development.

As indicated above, these comments do not reflect on the merits of the project, but instead are intended to be constructive to the overall development of the project. We appreciate the opportunity to comment on this project.

Sincerely yours,



George C. Andres
Transportation
Program Manager

GCA:h1b

RESPONSES:

2. The text on page I-1 has been revised accordingly.
3. The text on page I-6 has been revised accordingly.
4. This is mentioned on page I-10 and shown on Figure 7.
6. The text on page I-12 has been revised accordingly.
7. See Coast Guard comment #3 and response (page VI-21).
- 7a. The new span length will not affect water velocity.
8. It is possible to construct such an interchange.
9. The Kaskaskia Regional Port District has been sent a copy of the DEIS. The name of the agency has also been added to the list of agencies, organizations and individuals contained in the Summary on page S-8.

MISSOURI PACIFIC RAILROAD COMPANY
THE TEXAS AND PACIFIC RAILWAY COMPANY
CHICAGO AND EASTERN ILLINOIS RAILROAD COMPANY

ROOM 1500 MISSOURI PACIFIC BUILDING
210 NORTH 13TH ST., ST. LOUIS, MISSOURI 63103
TEL. AREA COOE 314

E. T. FRANZEN
CHIEF ENGINEER—DESIGN & CONSTRUCTION
622-2453

W. E. BRAKENSIEK
ASST. CHIEF ENGINEER
622-2861

J. G. GERMAN
ASSISTANT VICE-PRESIDENT—ENGINEERING
622-2483

D. J. BERTEL
CHIEF ENGINEER—MAINTENANCE
622-2456

R. J. KEMPER
ASST. CHIEF ENGINEER
622-2452

January 22, 1976

B - BRIDGE: JEFF BARRACKS MO
MISSISSIPPI RIVER
General (Interstate 255)

Mr. H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

SUBJECT: Draft Environmental Impact Statement
Interstate Route 255
J. B. Bridge to North of Columbia
Monroe County

DIST. ENGR.		
ASST. DIST. ADM.		
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JLL BC		

Dear Mr. Monroney:

Your letter, File #853.05, Job #P-98-120-74, dated January 19, 1976, has been received and the attached preliminary environmental report has been reviewed.

The report is generally satisfactory so far as concerns the Missouri Pacific Railroad Company. Please refer to Page I-18 of the report. The Railroad's tracks in Illinois, referred to in the second paragraph, are two main tracks of the Chester Subdivision of the Missouri Pacific Railroad Company. The tracks are used jointly with the St. Louis Southwestern Railway Company under terms of a joint track agreement.

We would appreciate receiving one copy of the final environmental impact statement when it becomes available.

Very truly yours,

E. T. Franzen

RESPONSE:

The text on page I-18 has been revised accordingly.

AGENCIES OFFERING COMMENTS REQUIRING NO RESPONSE

The agencies that received copies of the DEIS and returned letters containing comments that require no response are as follows:

U.S. Department of Health, Education and Welfare
Federal Aviation Administration, U.S. Department of Transportation
Illinois Department of Mines and Minerals
Illinois State Water Survey
Illinois Department of Business and Economic Development
Illinois Natural History Survey
Division of Aeronautics, Illinois Department of Transportation
Monroe County Zoning Office
St. Clair County Board
Bi-State Parks Airport
St. Louis County

The letter from each agency listed above is reproduced on the following pages.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

REGION V

300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606

OFFICE OF
THE REGIONAL DIRECTOR

March 18, 1976

Mr. Glen H. Sawyer
District Planning Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Sawyer:

RE: Draft Environmental Impact Statement
Interstate Route 255
J. B. Bridge to North of Columbia
Monroe County, Illinois

We have reviewed the Draft Environmental Impact Statement for the above project. To our knowledge, and based upon the information provided, this project will not impact to any significant degree on the health, education or welfare of the population.

Sincerely,

Robert A. Ford

Robert A. Ford
Regional Environmental Officer

cc: Charles Custard, OEA
Warren Muir, CEQ

*Copy to [unclear]
03-25-76*

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PH

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

GREAT LAKES REGION
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018



JAN 27 1976

Mr. Glen H. Sawyer
District Planning Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
St. Louis, Illinois 62203

Dear Mr. Sawyer:

Reference your draft environmental impact statement for Interstate Route 255, J. B. Bridge to North of Columbia, Monroe County. We have reviewed this DEIS and have no comments relating to aviation to offer.

It will not be necessary for you to provide a copy of the final environmental impact statement to this office.

Sincerely,

A handwritten signature in dark ink, appearing to read "K. A. Kraus", with a long horizontal flourish extending to the right.

KENNETH A. KRAUS
Environmental Quality & Noise Abatement Officer, AGL-4.5

DIST. ENGR.	
ASST. DIST. ADM.	
TO	FILE
ADM. SERV.	
CLERK	
TRAINING	
INSPECTION	
SALES	
RECORDS	
COMM. REL.	
OTHER	

4



STATE OF ILLINOIS

DEPARTMENT OF MINES AND MINERALS
SPRINGFIELD 62706



RUSSELL T. DAWE
DIRECTOR

February 6, 1976

BUREAU OF ENVIRONMENTAL SCIENCE	
RECEIVED:	2-18-76
BUREAU CHIEF:	<i>TD</i>
CITY:	SPRINGFIELD
Envir. Eng.	
Pol. & Plans.	
Rev. & Insp.	<input checked="" type="checkbox"/>
<i>Well</i>	

Mr. Earl H. Bowman
Bureau of Environmental Science
218 Administration Building
2300 South Dirksen Parkway
Springfield, IL. 62764

RE: Draft Environmental Impact Statement
J.B. Bridge to north of Columbia
Monroe County

Dear Mr. Bowman:

After reviewing the Draft Environmental Impact Statement, this Department has no objections or comments pertaining to the proposed project.

Sincerely,

Russell T. Dawe

Russell T. Dawe
DIRECTOR

Illinois State Water Survey

WATER RESOURCES BUILDING •
605 E. SPRINGFIELD, CHAMPAIGN

MAIL BOX 232, URBANA, ILLINOIS 61801 • AREA CODE 217
PHONE 333-2210

WILLIAM C. ACKERMANN, CHIEF

January 26, 1976

Mr. Earl H. Bowman
Acting Chief
Bureau of Environmental Science
Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

BUREAU OF ENVIRONMENTAL SCIENCE	
RECEIVED:	1-27-76
BUREAU CHIEF:	WCA
SECTION:	LAND ACQUISITION
Envir. Eng.	
Pol. & Planning	
Rev. & Control	
Null	

Dear Earl:

In response to your letter of January 23, 1976 we have reviewed the "Draft Environmental Impact Statement, J. B. Bridge to North of Columbia, Monroe County."

Although this is clearly a very important project, so far as we can determine, it would have minimal effect on water resources - the impact with which we are particularly concerned. Therefore, we have no specific comments on the draft statement.

Sincerely,

WCA

William C. Ackermann

WCA/jd

Illinois

Department of Business and Economic Development

Joseph Pisciotte, Director

Theodore N. Silverman, Deputy Director

March 12, 1976

Mr. Earl H. Bowman, Acting Chief
Bureau of Environmental Science
Illinois Department of Transportation
218 Administration Building
2300 South Dirksen Parkway
Springfield, Illinois 62764

BUREAU OF ENVIRONMENTAL SCIENCE		
RECEIVED:	3-12-76	
ADMIN. CHIEF		
SUPV. ENGR.		
PL. & Insp.		
Rev. & Coord.		
Nell		

Re: J. B. Bridge to North of Columbia, Monroe County

Dear Mr. Bowman:

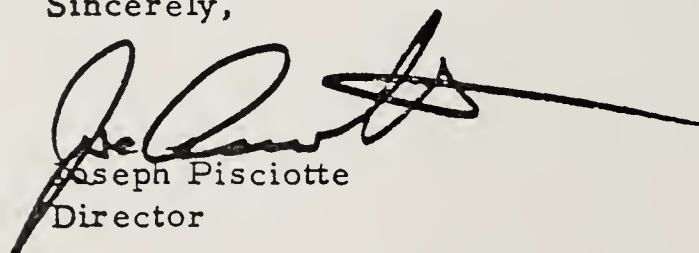
The Department of Business and Economic Development views road construction in terms of the resulting potential economic impact. Roads allow not only for the movement of people from a given place to another; they also allow for the movement of goods and services. The latter is of prime important to business and industrial concerns.

After reviewing the draft of the Environmental Impact Statement, this Department perceives no conflict with our concern for continued economic development.

Further, in light of the proposed construction of FAI 255, which would utilize the J. B. Bridge, this Department agrees as to the need for new bridge construction.

Upon completion of the final Environmental Impact Statement, please send a copy to this Department.

Sincerely,


Joseph Pisciotte
Director

STATE OF ILLINOIS
 DEPARTMENT OF
 REGISTRATION AND EDUCATION
 XXXXXXXX Director Ronald E. Stackler
 Springfield
 BOARD OF NATURAL RESOURCES
 AND CONSERVATION
 XXXXXXXX Chairman R.E. Stackler
 GEOLOGY L. L. SLOSS
 CHEMISTRY HERBERT S. GUTOWSKY
 ENGINEERING ... ROBERT H. ANDERSON
 BIOLOGY THOMAS PARK
 FORESTRY XXXXXXXX
 UNIVERSITY OF ILLINOIS
 DEAN WILLIAM L. EVERITT
 SOUTHERN ILLINOIS UNIVERSITY
 DEAN XXXXXXXX John C. Guyon

ILLINOIS NATURAL HISTORY SURVEY

Natural Resources Building

Urbana, Illinois 61801

Stanley K. Shapiro

Telephone: 333-6880

Area Code 217

GEORGE SPRUGEL, JR., Chief

January 27, 1976

BUREAU OF ENVIRONMENTAL SCIENCE		
RECEIVED:	1-28-76	
BUREAU CHIEF:		
SECTION	INFO	ACTION
Environ. Eng.		
Pol. & Proced.		
Dev. & Coord.		
N.I.		

Mr. Earl H. Bowman, Acting Chief
 Bureau of Environmental Science
 Illinois Department of Transportation
 218 Administration Building
 2300 South Dirksen Parkway
 Springfield, Illinois 62764

Ref: Draft EIS
 J.B. Bridge to North of Columbia
 Monroe County

Dear Mr. Bowman:

The State Natural History Survey has examined the referenced draft Environmental Impact Statement as requested. We have no significant objection to the Statement insofar as Survey interests are concerned.

With best personal regards.

Sincerely yours,

George Sprugel
 George Sprugel, Jr.
 Chief

GS:aa



January 29, 1976

[illegible]

RE: Draft Environmental Impact State-
ment
J. B. Bridge to North of Columbia
Monroe County

Dear Mr. Bowman:

We have reviewed the above referenced Environmental Impact Statement and have found that it is consistent with the plans and programs of this office.

Very truly yours,

James V. Bildilli
James V. Bildilli
Engineer of Airport Planning

James V. Bildilli
Engineer of Airport Planning
and Programming
Bureau of Airport Engineering

For - Roger H. Barcus
Chief Engineer

JVB:rkb

Monroe County Zoning Office

~~ADMINISTRATOR~~ ADMINISTRATOR

224 E. THIRD ST., WATERLOO, ILLINOIS 62298 (AREA CODE 618) 939-8681-EXT. 219

HOURS: 8 TO 12 A.M.

January 28, 1976

Illinois Department of Transportation
9300 St. Clair Avenue
E. St. Louis, IL 62203

Dear Sirs,

In regard to the new Bridge (J-B) and construction of the new Highway (I-255), I think it would be a very good idea to leviatate traffic in the future for our part of the country and is really necessary for new development.

We would like to request a copy of the final environmental impact statement.

Very truly yours,

Clarence Mentel
Clarence Mentel
Zoning Administrator

CM:cd

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<input type="checkbox"/>	OTHER



VICTOR P. CANTY
CHAIRMAN

ST. CLAIR COUNTY BOARD

1 South Church • Room 207 • Belleville, Illinois 62220 • (618) 234-8329

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ADMINISTRATION
PHILLIP R. TAYLOR

BOARD SECRETARY
ALICE TRAUB

SUPERINTENDENT
OF HIGHWAYS
JAMES CONTRATTO

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District 13
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District 17
ALFRED N. YOUNG

District 18
JOHN L. ANHEUSER

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MICHAEL KING

District 26
RDO R. BROWN

District 27
VICTOR P. CANTY

District 28
NOMAN COX

District 29
PATRICK D. SULLIVAN

March 10, 1976

Illinois Department of Transportation
District Engineer
9300 St. Clair Avenue
East St. Louis, Illinois 62203

ATTN: MR. H.W. MONRONEY

Dear Mr. Monroney:

Review of the draft Environmental Impact Statement
for the proposed I-255 Jefferson Barracks Bridge and
Approach Road project yields the following comments.

There are no significant disadvantages identifiable
to any aspect of the project action. There will be no
affect upon the character of established neighborhoods
and/or communities. No disruption of or isolation from
protective, social, utility, or educational services
will be experienced either during construction or upon
its completion. The levels of pollutants discharged
both during construction and by future projected traffic
use will be within acceptable Federal Standards. The
loss of approximately 30 acres of farmland will result
from the project; however, when this is compared to the
total farm acreage available for cultivation in the area
that loss is not significant. The impact upon vegetation
and wildlife will be extremely minimal.

The advantages of the proposed project (immediate and
potential) are several. The project will improve
local and interstate travel efficiency and convenience
with a resulting improvement in highway safety. The
project will increase local area employment opportunities.
Finally, it is felt that the Jefferson Barracks Bridge
project is necessary to make the proposed I-255 circum-
ferential highway network a viable transportation system.

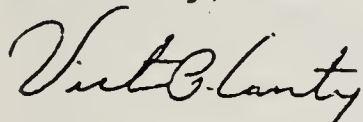
It is our considered opinion that the immediate and
potential advantages of this project completely out-
weigh the slight disadvantages that will be experienced
through project implementation. It is obviously necessary

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for the various levels of government to initiate actions that will stimulate area economic growth and employment opportunities. We feel the adoption of this project will do much to address these needs. Further, it is our opinion that the absence of significant adverse impacts deriving from this project justify the conversion of this draft Environmental Impact Statement to a Negative Declaration.

Finally, should a final Environmental Impact Statement be prepared, this office does desire a copy.

Sincerely,

A handwritten signature in cursive script, appearing to read "Victor P. Canty".

Victor P. Canty, Chairman
St. Clair County Board

VPC/sd

1400 UPPER CAHOKIA ROAD
EAST ST. LOUIS, ILLINOIS 62206
AREA CODE: (618) 337-6060



- OWNED AND OPERATED BY -
BI-STATE DEVELOPMENT AGENCY
Missouri-Illinois Metropolitan District
Larry Mullendore, Airport Manager

February 20, 1976

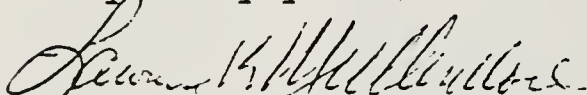
Mr. H. W. Monroney, District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Monroney:

We appreciate the opportunity you have provided us to review the Draft Environmental Impact statement for project I-255-9(6)0. We have thoroughly examined the report and conclude this project would have a significant positive impact on the entire area in general and Bi-State Parks Airport in particular. At least 50% of the users of Bi-State Parks Airport are either Missouri residents or are traveling to Missouri to conduct business in the state. The Missouri residents who are currently utilizing the Jefferson Barracks Bridge would be substantially aided by the completion of this project.

Again, thank you for the opportunity to review this project and consider Bi-State Parks Airport as giving you its complete support in anyway we can to assist in its successful conclusion.

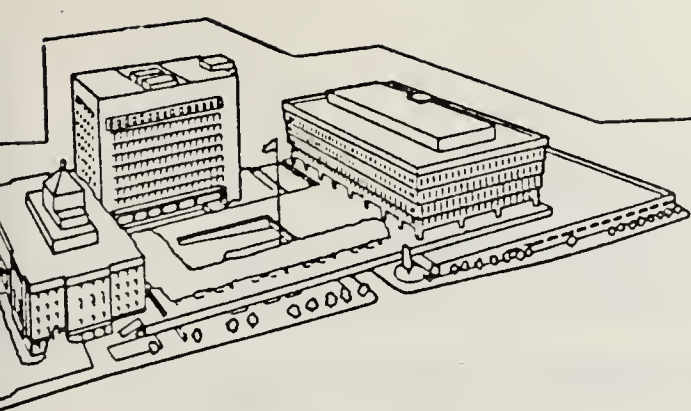
Very truly yours,


Lawrence K. Mullendore
Airport Manager

LKM:rl

cc Robert J. Baer

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ST. LOUIS COUNTY, MISSOURI
GENE McNARY, SUPERVISOR

DEPARTMENT OF HIGHWAYS AND TRAFFIC
RICHARD F. DAYKIN, DIRECTOR

March 1, 1976

Mr. H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Mr. Monroney:

We have reviewed the Draft Environmental Impact Statement for Interstate Route 255, J.B. Bridge, and roadway approaches to north of Columbia, Monroe County, Illinois, and wish to add our support for this much needed project in the St. Louis region.

While the need for the project and this improvement is evident, we do not have access to all the land use information that was utilized in the projection of the 1995 traffic volumes. If extensive development on the Illinois side of the river south of the proposed improvement becomes a reality, the need for the extension and improvements of the Inner Belt Highway in St. Louis County and Route 141 in Jefferson County will become mandatory. These improvements will probably necessitate additional river crossings at one or both of the extensions of these roadways.

Very truly yours,

Richard F. Daykin
Richard F. Daykin, Director

RFD/NCS/em

cc: Mr. Ned S. Taddeucci, Executive Assistant to the Supervisor
Mr. James H. White, Administrative Director, County Council
Mr. Jack Walsh, Business and Industrial Development Commission

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(314) 889-3104		

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Information presented in summary form from about 200 reports of highway studies.

2. U. S. Department of Transportation. Federal Highway Administration. GUIDE FOR HIGHWAY IMPACT STUDIES. Washington, D.C. 1971.

Suggestions are made for needed studies, and previous research is cited or summarized.

3. Jay S. Golden. LAND VALUES IN CHICAGO: BEFORE AND AFTER EXPRESSWAY CONSTRUCTION. Chicago Area Transportation Study. 1968.

The before date was two years prior to the beginning of right of way acquisition. The after date was two years after a section was open to continuous traffic.

Test areas along five expressways were compared with control areas, using standard statistical techniques, which are described in the report.

4. James B. Sullivan and Paul A. Montgomery, EVALUATING HIGHWAY IMPACTS. Center for Science in the Public Interest. September 1972.

Subtitle: How state and federal officials evaluate the environmental impact of urban highways and how citizens can ensure that an adequate assesement is made.

5. George A. Viverette, Jr., "How Roads Boost Land Values," HIGHWAY USER, January 1967, pp. 24-26.

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APPENDIX A

SECTION 106 DETERMINATIONS

PERSUANT TO THE NATIONAL HISTORIC PRESERVATION
ACT OF 1966 AND EXECUTIVE ORDER 11593)

STATEMENT OF EFFECT OF PROPOSED
FEDERAL-AID INTERSTATE ROUTE 255
ON THE AREA'S HISTORIC LANDMARKS

CONCLUSIONS AND CONCURRENCES

As required by Section 106 of the National Historic Preservation Act of 1966 and the Procedures for Compliance promulgated by the Advisory Council on Historic Preservation and published in the Federal Register on February 4, 1975, the proposed Federal-Aid Interstate Route 255 has been evaluated to determine the nature and extent of its effect upon recognized historic landmarks located in the general project vicinity. This evaluation was limited to buildings, structures, objects, etc. of historical (associated with an important person or event) or architectural (type, period, method of construction, artistic value) significance. Prehistoric (archaeological) cultural resources were not included in this evaluation.

The conclusion of the analysis presented in the report - Statement of Effect of Proposed Federal-Aid Interstate Route 255 on the Area's Historic Landmarks, dated January 1976 - is that Federal-Aid Interstate Route 255 (from the J.B. Bridge Crossing of the Mississippi River to FAI Route 55, west of Collinsville - Monroe, St. Clair, and Madison Counties) would have no effect on the quality of the character of any historic landmark that either qualified it for listing or made it eligible for inclusion in the National Register of Historic Places.

Submitted: H W Monroney
H. W. Monroney, District Engineer
District 8, Ill. Dept. of Transportation

Jan 20, 1976
Date

Concurrence: Cutham Dean
State Historic Preservation Officer
(Director, Illinois Department of
Conservation)

February 19, 1976
Date

Concurrence: Leslie H. Wood
Staff Specialist for Environment
Federal Highway Administration

March 29, 1976
Date

STATEMENT OF EFFECT OF PROPOSED
FEDERAL-AID INTERSTATE ROUTE 255 ON THE
LUNSFORD-PULCHER ARCHEOLOGICAL SITE -
A NATIONAL HISTORIC PROPERTY

CONCLUSIONS AND CONCURRENCES

As required by Section 106 of the National Historic Preservation Act of 1966 and the Procedures for Compliance promulgated by the Advisory Council on Historic Preservation and published in the Federal Register on February 28, 1973, the proposed Federal-Aid Interstate Route 255 has been evaluated to determine the nature and extent of its effect on the Lunsford-Pulcher Archeological Site, a property listed in the National Register of Historic Places. The Criteria for Effect enumerated by the Advisory Council and the results of the application of these criteria are as follows:

- Destruction or alteration of all or part of the property -- The highway does not physically encroach upon the property.
- Isolation from or alteration of its surrounding environment -- The highway would be located within an existing transportation corridor between an existing highway and an existing mainline railroad track.
- Introduction of visual, audible, or atmospheric elements that are out of character with the property and its setting -- The highway traffic would be consistent with the present transportation uses in the corridor and would not emit noise or air pollution in excess of applicable standards.

The conclusion of the analysis presented in the report (Statement of Effect of FAI 255 on the Lunsford-Pulcher Archeological Site - A National Historic Property, November, 1973) is that Federal-Aid Interstate Route 255 would have no effect on the quality of the character of the Lunsford-Pulcher Site that qualified it for listing in the National Register of Historic Places.

Submitted:	<u>Robert E. Kronst</u> Robert E. Kronst, District Engineer, District 8, Ill. Dept. of Transportation	<u>11.21.73</u> Date
Concurrence:	<u>Anthony J. Dean</u> State Liaison Officer for Historic Preservation (Director, Illinois Department of Conservation)	<u>1-28-74</u> Date
Concurrence:	<u>David H. Wood</u> Staff Specialist for Environment Federal Highway Administration	<u>3-1-74</u> Date



MISSOURI STATE PARK BOARD

State Historical Survey and Planning Office • 909 University Avenue
Suite 215 • Columbia Professional Bldg. • Columbia, Mo. 65201 • 314/449-0725

May 3, 1974

CHRISTOPHER S. BOND
Governor
JAMES L. WILSON
Director
BOARD MEMBERS
Robert M. Frost, Chairman
Plattsburg
Claude A. Jacobs, Vice Chairman
Kirksville
Hubert E. Lay, Member
Houston
Conn C. Winfrey, Member
Lebanon
Taylor Miles, Member
Kennett
Gerald B. Rowan, Member
Kansas City

Mr. Terry Rehma
A-95 Coordinator
Office of Planning
Dept. of Community Affairs
505 Missouri Boulevard
Jefferson City, Missouri 65101


Dear Mr. Rehma:

We have concluded our research on the effects of I-255 on Jefferson Barracks Historic District (DOCA # 74030073). We have no objections to the project as written as the highway appears to have no detrimental effects on the National Register property.

Thank you for allowing us the necessary time to make our evaluation.

Sincerely,

STATE HISTORICAL SURVEY AND PLANNING OFFICE



(Mrs.) Susan B. Traub
Research Associate

SBT:kae



Proposed Federal Aid Interstate Route 270
(formerly identified as FAI Route 255)
From Jefferson Barracks Bridge to FAI Route 55
Monroe, St. Clair, and Madison Counties

MEMORANDUM OF AGREEMENT

We, the undersigned, agree to the following statements concerning the involvement of the subject highway project with the archaeological resource base existing in the highway project area:

1. that the archaeological reconnaissance survey conducted in 1975-1976 by the Illinois Department of Transportation under the auspices and technical guidance of the Illinois Archaeological Survey has adequately located and identified the archaeological resources that would be potentially impacted by the construction of the subject highway project;

2. that the report - Requests for Determination of Eligibility for Inclusion in the National Register of Historic Places - Sixty-Nine Archaeological Sites - Proposed Federal Aid Interstate Route 255 - Monroe, St. Clair, and Madison Counties; Federal Highway Administration and Illinois Department of Transportation; June, 1976 - documented the findings, significance, and location of each of the sixty-nine archaeological sites to the degree required to support a request to the Secretary, U.S. Department of the Interior, concerning the eligibility of these archaeological resources for inclusion in the National Register of Historic Places;

3. that the August 27, 1976 letter from the U. S. Department of the Interior, National Park Service, Office of Archaeology and Historic Preservation to Mr. Jay W. Miller, Federal Highway Administration, established the eligibility of the archaeological resources (contained in the report identified in statement number 2 of this memorandum) for inclusion in the National Register of Historic Places as a group or district;

4. that from the group of sixty-nine archaeological sites, three archaeological districts are hereby established (these archaeological districts are identified as the Jefferson Barracks Bridge Road Archaeological District, the American Bottom Archaeological District and the Pleasant Ridge Road Archaeological District and further that the boundaries of these three districts are precisely denoted on sections of U.S.G.S. 7½ minute quadrangle maps which are attached to this memorandum);

5. that this memorandum with the attached sections of the appropriate U.S.G.S. quadrangle maps (which contain the boundaries for each of the three previously mentioned archaeological districts) together with the report described in statement number 2 of this memorandum and the U.S. Department of Interior letter described in statement number 3 of this memorandum define and establish three separate archaeological districts, and further that each of these three archaeological districts is eligible for inclusion in the National Register of Historic Places;

6. that the three archaeological districts as established and defined are acceptable and adequate to recognize the significance of the archaeological resources, to permit adoption of adequate mitigation measures, and to permit the processing requirements of the various documents for this highway project to be satisfied;

7. that being eligible for inclusion in the National Register of Historic Places, the provisions of both Section 106 of the National Historic Preservation Act of 1966 (PL 89-665) and Executive Order 11593 (16 U.S.C. 470 apply to each of the three archaeological districts established by this memorandum;

8. that execution of the procedures promulgated by the Advisory Council on Historic Preservation (36 CFR, Part 800) and last published in the Federal Register (41 FR 5910) on February 10, 1976 will satisfy the requirements of both Executive Order 11593 and PL 89-665;

9. that concerning the Advisory Council on Historic Preservation procedures (36 CFR, Part 800), it is further agreed that the evaluation of the impacts of this highway project upon each of the three archaeological districts has produced a determination of "No Adverse Effect" for each district (made in accordance with the attached guidelines recently promulgated by the Advisory Council on Historic Preservation).

10. that archaeological salvage of the archaeological resources located within the highway right-of-way will constitute adequate mitigation concerning these archaeological resources. (Salvage means the scientific extraction of artifacts and data from their location within or on the ground; cataloging and storage of artifacts; and the publication of data);

11. that the archaeological salvage operations are to be funded jointly by the Illinois Department of Transportation and the Federal Highway Administration;

12. and finally, that having adopted a course of action which involves salvaging of the archaeological resources located within the right-of-way of this highway project, none of these three archaeological districts will be nominated to the Keeper of the National Register for inclusion in the National Register of Historic Places.

John M. Sauri

State Historic Preservation Officer

10/20/76

Date

Langhorne Bond

Illinois Department of Transportation

10-26-76

Date

CONCUR:

Lionel H. Wood

Federal Highway Administration

11-4-76

Date

December 10 1976

Dear Mr. Wood:

1) Some of the lands have not been available for archeological testing, and it will be necessary for the Illinois Department of Transportation to acquire the lands before such testing can be done. Until the testing is completed, the research value of those sites cannot be determined.

Consequently, because of incomplete data and the importance of the archeological resources, we must object to your determination of no adverse effect. We believe, however, that archeological data recovery will be necessary before I-290 is constructed.

We suggest that a meeting be arranged for February, 1977, to work out a program of orderly and timely consumption of the archeological resources in the I-290 right-of-way. The data recovery plan will then be formalized in a Memorandum of Agreement.

In consideration for the needs of the planning process for I-290, we do not object to the idea that data recovery is an acceptable means of mitigating the impact of the highway construction, with the provision that the details of the mitigation measures be worked out later.

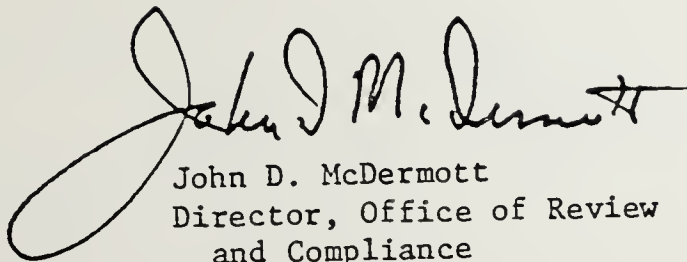
NOTE: The reference to I-290 should read I-270.

The Council is an independent unit of the Executive Branch of the Federal Government charged by the Act of October 15, 1966 to advise the President and Congress in the field of Historic Preservation.

Page 2.

Thank you for your cooperation.

Sincerely yours,

A handwritten signature in black ink, reading "John D. McDermott". The signature is fluid and cursive, with a large loop at the beginning of the first name and a small mark at the end of the last name.

John D. McDermott
Director, Office of Review
and Compliance

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

PCV. ENCL.	
ASST. D. I.	
ASST. DIR.	
P. G. R. ENCL.	
BR. ENCL.	
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SAF. A.	
ENV. ENCL.	
E.O. ENCL.	
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H34-PR

Mr. Jay W. Miller
Division Administrator
Department of Transportation
Federal Highway Administration
3035 East Stevenson Drive
Springfield, Illinois 62703

Dear Mr. Miller:

Thank you for your request for a determination of eligibility for inclusion in the National Register on 69 archeological sites discovered in connection with planning for Illinois Project I-270-7(), Interstate 270, and the accompanying Overview, which you provided with your letter 5-17.8 of July 29, 1976. This systematic presentation of information has greatly facilitated our review process.

On the basis of the information you have supplied and in consultation with the Illinois State Historic Preservation Officer, we have determined that all 69 sites may be eligible for inclusion in the National Register under (D) of the National Register criteria for evaluation. As you noted in your letter, a firm determination of eligibility will require additional data, which can best be obtained through subsurface testing at some of the more ambiguous sites; we understand that such testing is now planned. This testing should help to define the boundaries of some of the sites, which appear to be rather arbitrarily drawn on the aerial photos. We would also suggest that a testing program be developed to insure that significant resources are not missed on lands that have not as yet been subjected to pedestrian survey. Exhibit four of the Overview indicates that only agricultural fields have actually been surveyed; we believe that care should be taken to insure that non-agricultural areas are adequately inspected as well. Results of the additional testing may be sent to this office for a definitive determination of eligibility.

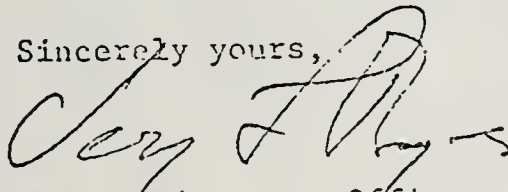
In making this determination, we recognize that some sites may be determined individually ineligible when the results of subsurface testing become available. We also recognize that more sites eligible for the National Register may be discovered as the testing program proceeds. The information you have provided, however, is sufficient to show that the sites in the right-of-way, when taken as a group, can provide a great variety of data on the social, ecological, economic, and demographic processes involved in the development of prehistoric urbanism in North America.

On this basis, we believe that their eligibility for the National Register as a group has been demonstrated. It may be useful for this area to be considered as a potential archeological district.

As you understand, a request for our professional judgment pursuant to Executive Order 11593 and the Advisory Council's procedures in this regard, developed in consultation, inter alia, with the Department of Transportation, constitutes a part of the Federal planning process. We urge that this information be integrated into the National Environmental Policy Act analysis to permit the Federal Highway Administration to reach the most effective program decisions. This determination of eligibility for inclusion in the National Register does not serve in any manner as a veto to uses of property, with or without Federal participation or assistance. Any decision on the property in question and the responsibility for program planning concerning such properties lie with the agency after the Advisory Council on Historic Preservation has had an opportunity to comment.

We appreciate your assistance and cooperation in the implementation of Executive Order 11593 and we look forward to seeing the documentation which will be produced by further testing.

Sincerely yours,



Acting Director, Office of Archeology
and Historic Preservation



Maryville

Pleasant Ridge

FAP RTE 55

Troy Crossing

KEEBLER AVE.

Cuba Sch.

Lambert Sch.

Lakeview Cem.

Meadow Heights

NOTE: THE LOCATIONS OF ARCHAEOLOGICAL SITES
WITHIN THE DISTRICT HAVE NOT BEEN
SHOWN IN ORDER TO PROTECT THE
SITES FROM POSSIBLE VANDALISM

THE PLEASANT RIDGE RD. ARCHAEOLOGICAL DISTRICT
MADISON CO., ILL.

COLLINSVILLE

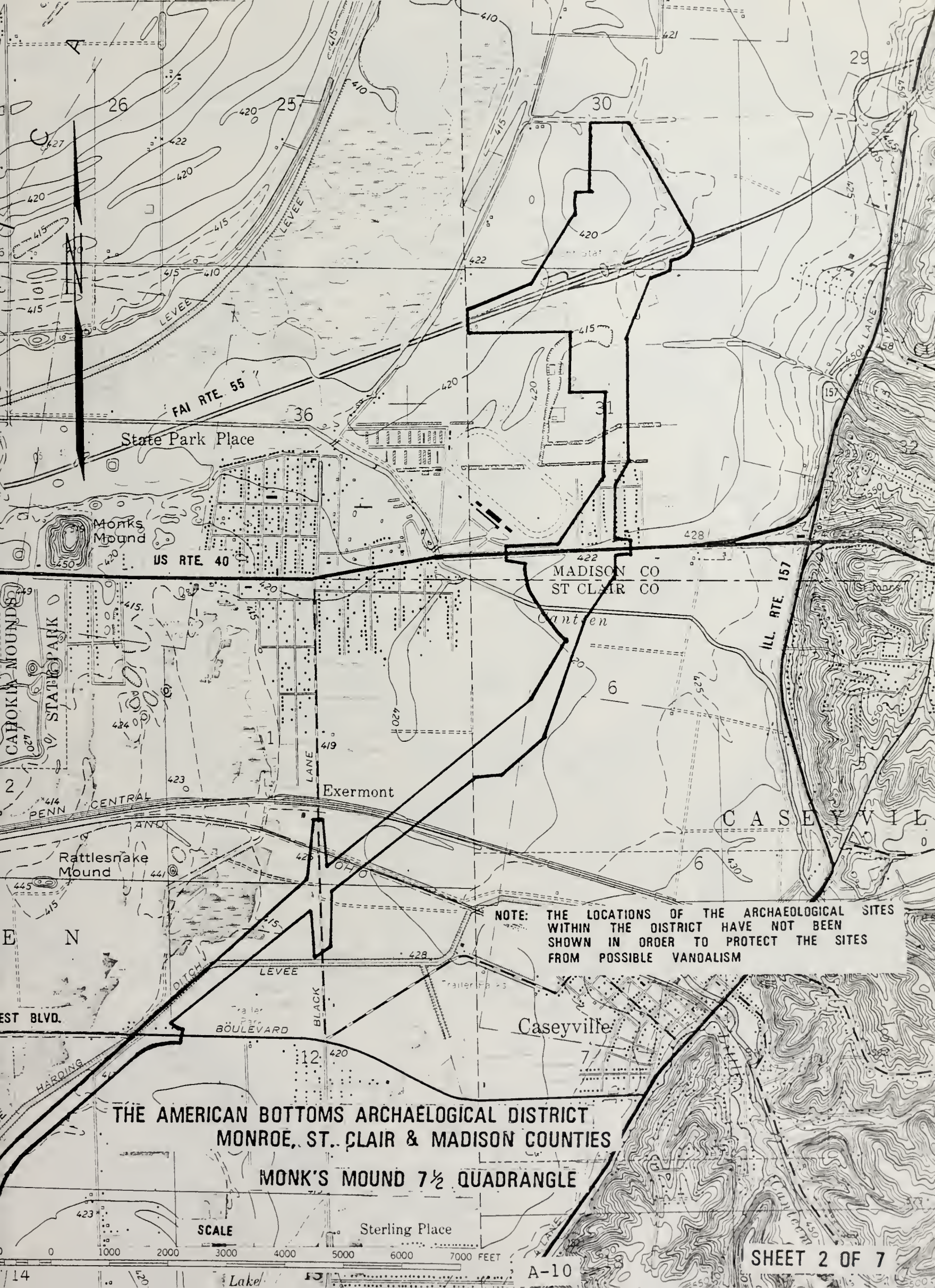
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SHEET 1 OF 7

A-9



State Park Place

US RTE. 40

CAHOKIA MOUNDS
STATE PARK

CENTRAL

Rattlesnake Mound

Exermont

MADISON CO
ST CLAIR CO

ILL. RTE. 157

CASEYVILLE

NOTE: THE LOCATIONS OF THE ARCHAEOLOGICAL SITES
WITHIN THE DISTRICT HAVE NOT BEEN
SHOWN IN ORDER TO PROTECT THE SITES
FROM POSSIBLE VANDALISM

Caseyville

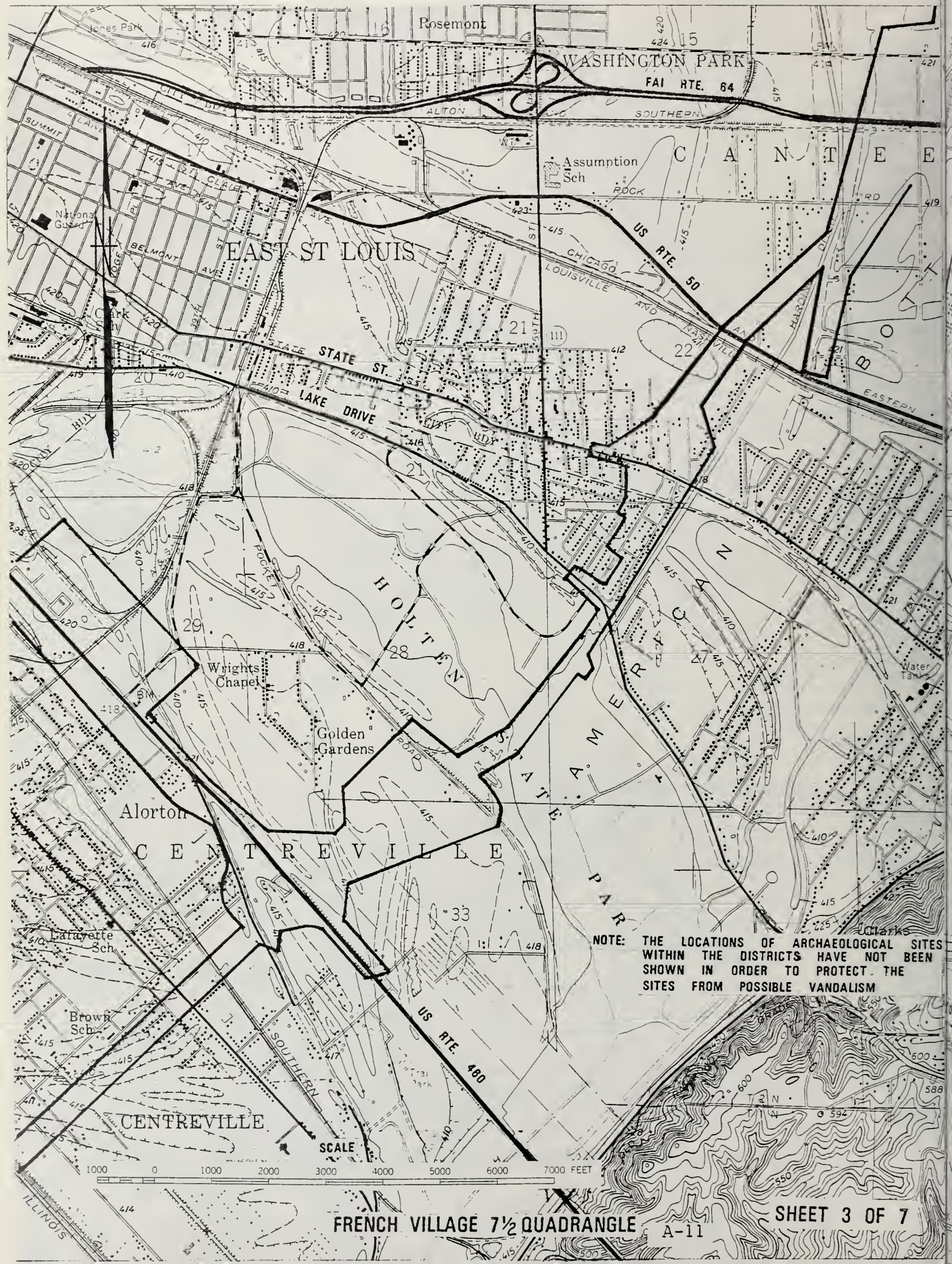
THE AMERICAN BOTTOMS ARCHAEOLOGICAL DISTRICT
MONROE, ST. CLAIR & MADISON COUNTIES
MONK'S MOUND 7 1/2 QUADRANGLE

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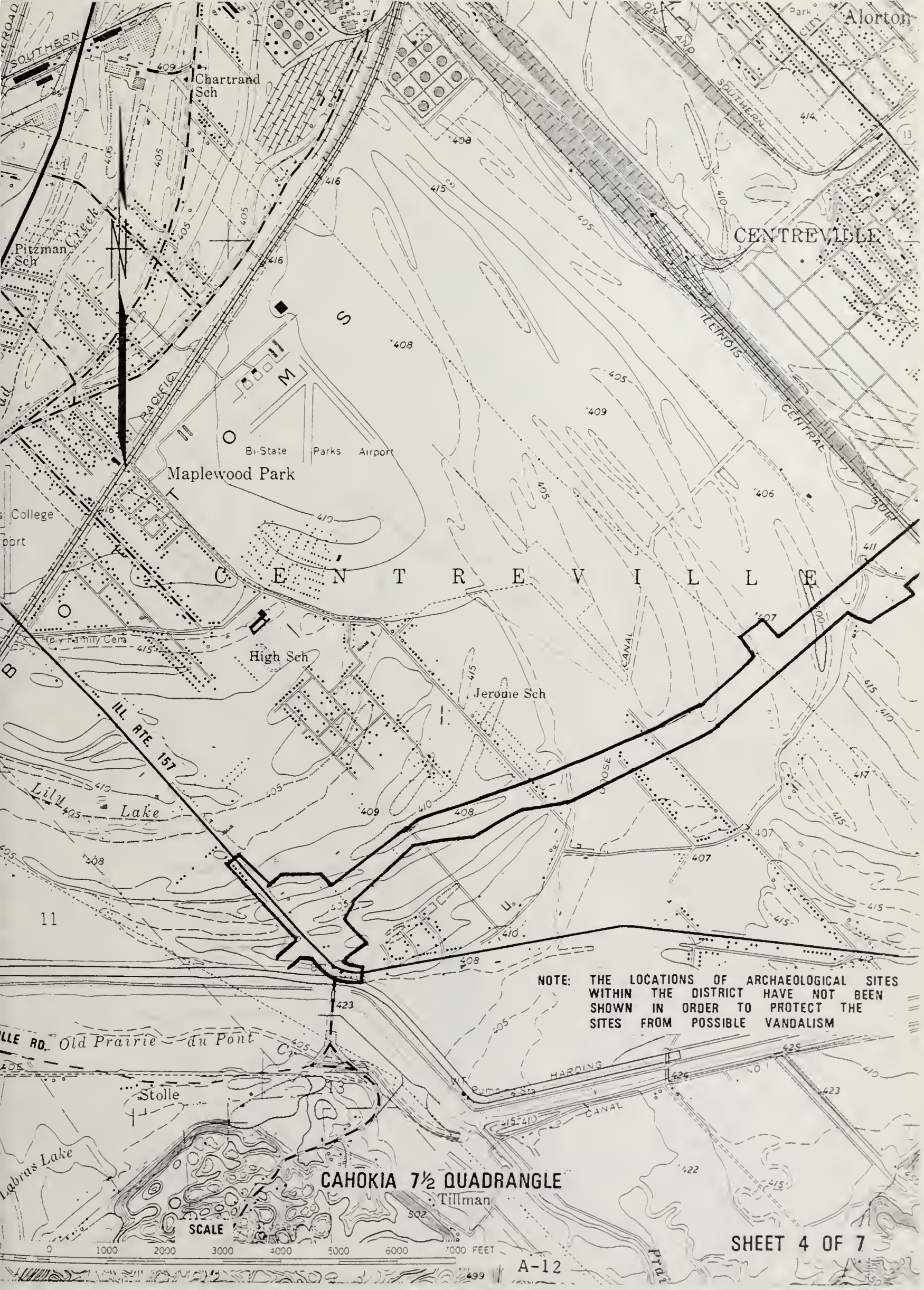
Sterling Place

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SHEET 2 OF 7



NOTE: THE LOCATIONS OF ARCHAEOLOGICAL SITES WITHIN THE DISTRICTS HAVE NOT BEEN SHOWN IN ORDER TO PROTECT THE SITES FROM POSSIBLE VANDALISM



Alorton

CENTREVILLE

Chartrand Sch

Pitzman Sch

Maplewood Park

Bi-State

Parks

Airport

High Sch

Jerome Sch

ILL. RTE. 157

Lily Lake

11

NOTE: THE LOCATIONS OF ARCHAEOLOGICAL SITES
WITHIN THE DISTRICT HAVE NOT BEEN
SHOWN IN ORDER TO PROTECT THE
SITES FROM POSSIBLE VANDALISM

LE RD. Old Prairie du Pont

Stolle

Labras Lake

CAHOKIA 7 1/2 QUADRANGLE

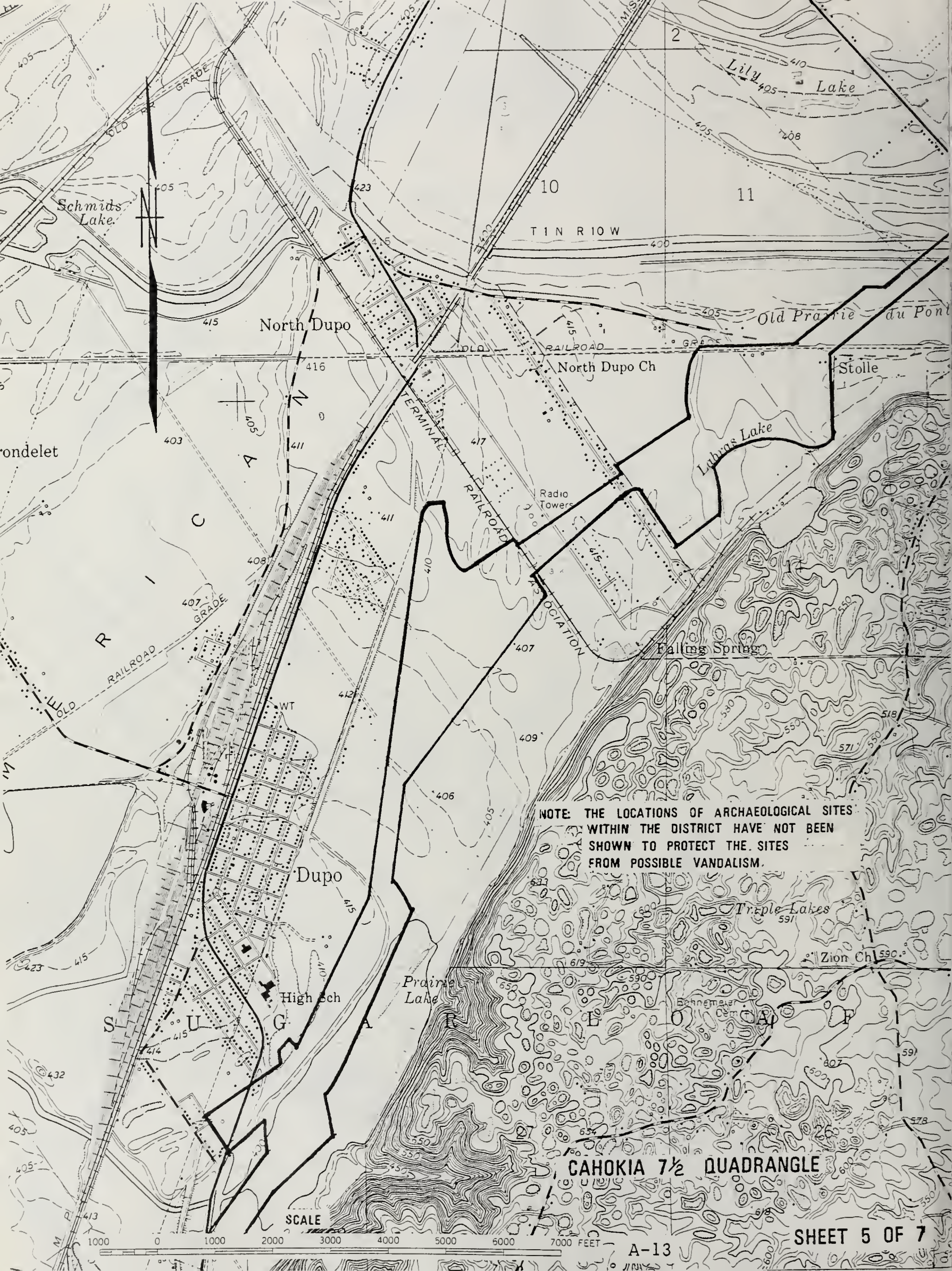
Tillman

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SHEET 4 OF 7



Schmids Lake

Lily Lake

North Dupo

T I N R I O W

Old Prairie du Pont

North Dupo Ch

Stolle

Labas Lake

Radio Towers

Falling Springs

Dupo

High Sch

Prairie Lake

Triple Lakes

Zion Ch

Behrman

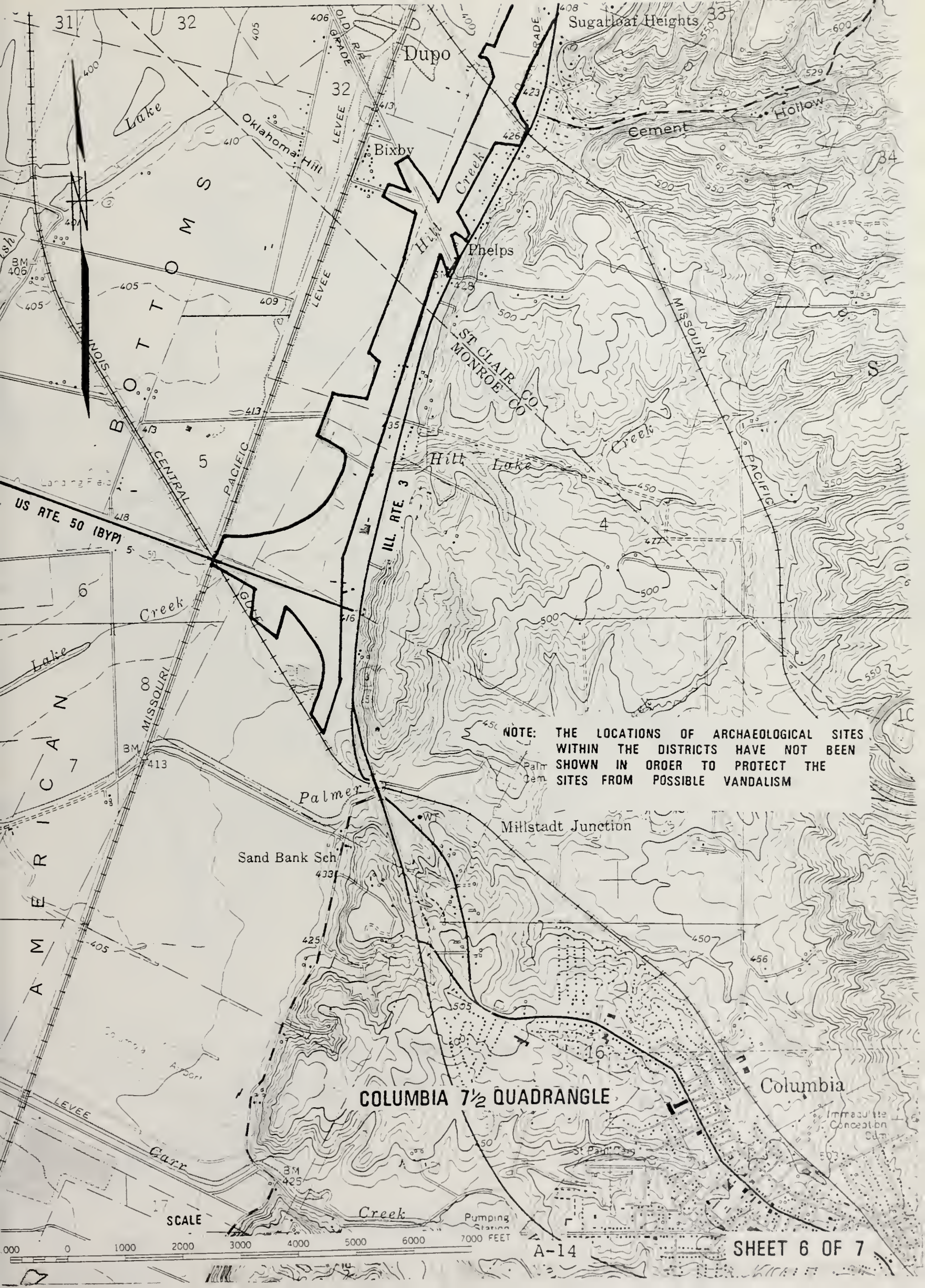
CAHOKIA 7 1/2 QUADRANGLE

SHEET 5 OF 7

A-13

SCALE

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NOTE: THE LOCATIONS OF ARCHAEOLOGICAL SITES
WITHIN THE DISTRICTS HAVE NOT BEEN
SHOWN IN ORDER TO PROTECT THE
SITES FROM POSSIBLE VANDALISM

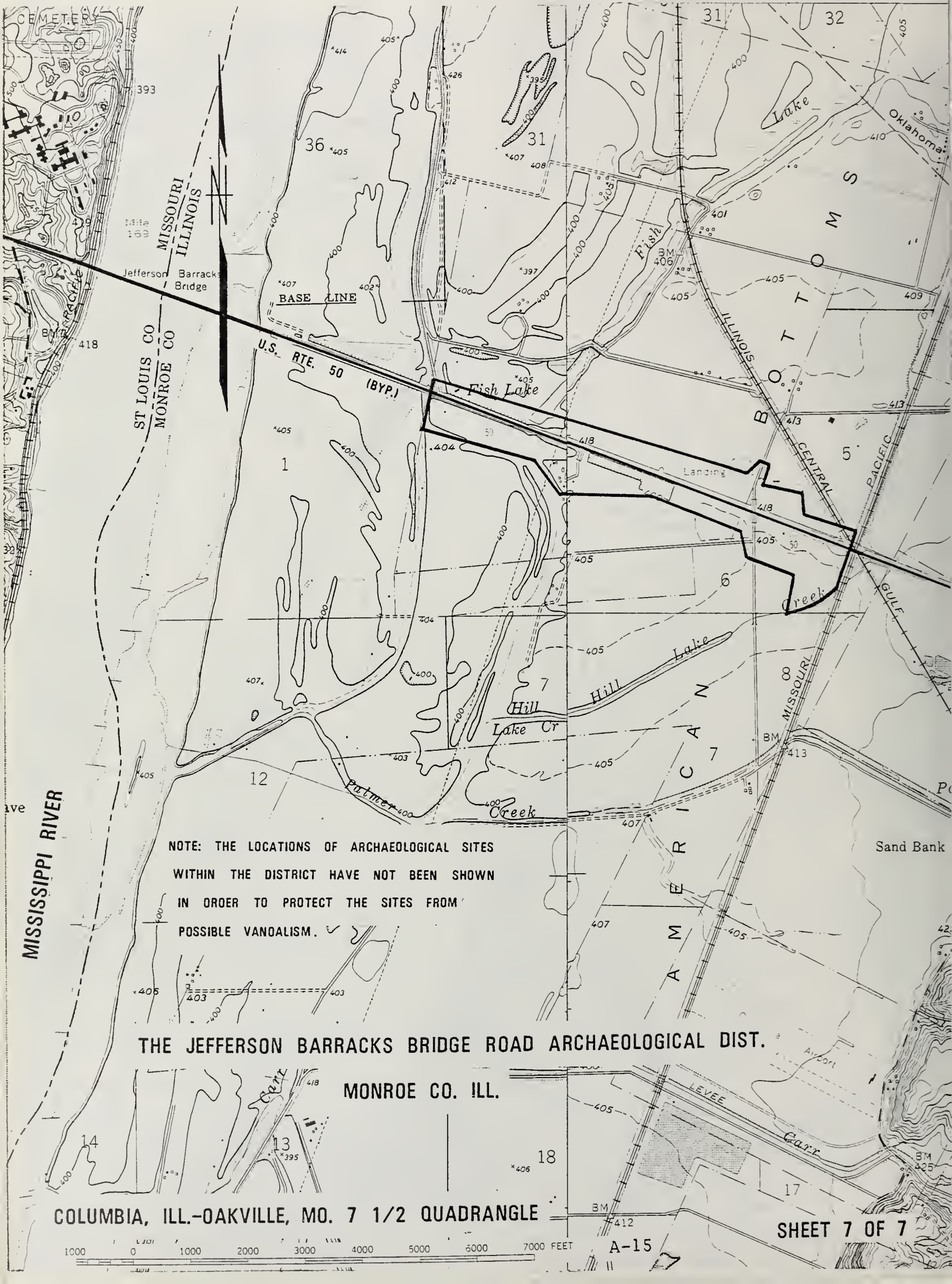
COLUMBIA 7 1/2 QUADRANGLE

SCALE

0 1000 2000 3000 4000 5000 6000 7000 FEET

A-14

SHEET 6 OF 7



NOTE: THE LOCATIONS OF ARCHAEOLOGICAL SITES
WITHIN THE DISTRICT HAVE NOT BEEN SHOWN
IN ORDER TO PROTECT THE SITES FROM
POSSIBLE VANDALISM.

THE JEFFERSON BARRACKS BRIDGE ROAD ARCHAEOLOGICAL DIST.

MONROE CO. ILL.

COLUMBIA, ILL.-OAKVILLE, MO. 7 1/2 QUADRANGLE

SHEET 7 OF 7

A-15



STATE OF ILLINOIS

DEPARTMENT OF CONSERVATION

605 STATE OFFICE BUILDING

400 SOUTH SPRING ST.

SPRINGFIELD 62706

ANTHONY T. DEAN
DIRECTOR

WILLIAM A. WATTS
ASSISTANT DIRECTOR

CHICAGO OFFICE—ROOM 100, 160 N. LA SALLE ST., 60601

June 28, 1976

Mr. H. W. Monroney
District Engineer
Illinois Department of
Transportation
Fairview Heights, IL 62208

Dear Mr. Monroney,

My staff has received your reports "An Overview of Archaeological Investigations: Federal Aid Interstate Route 255 (from Jefferson Barracks Bridge Crossing of the Mississippi River to Interchange with Federal Aid Interstate Route 55, west of Collinsville) Monroe, St. Clair and Madison Counties", and "Preliminary Section 4 (f) statement Federal Aid Interstate Route 255 Involvement with the Area's Archaeological Resource Base".

We concur that excavation of the archaeological sites will be adequate mitigation. Frankly, however, in our view it seems a remote possibility that all 70 archaeological sites will need to have excavation.

Sincerely,

A handwritten signature in dark ink, appearing to read "Anthony T. Dean".

Anthony T. Dean
State Historic Preservation
Officer

cc: T. E. Hornbacker



ILLINOIS ARCHAEOLOGICAL SURVEY

109 DAVENPORT HALL

UNIVERSITY OF ILLINOIS

URBANA, ILLINOIS 61801

Cooperating Institutions:
University of Illinois
Southern Illinois University
Illinois State Museum

Mr. H. W. Monroney
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
Fairview Heights, Illinois 62208

Dear Mr. Monroney:

DIST. ENGR.		
ASST. DIST. ADM.		
August 7, 1976		
TO	FILE	ACT
ADM. SERV.		
CONST.		
DESIGN		
LOC RDS.		
MAINT.		
MAT.		
PLAN		
LAND ACQ.		
TRAFFIC		
CONFER WITH ME		
ALL BC		

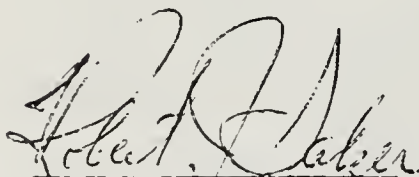
The undersigned are writing to you with regard to your letter of August 3, 1976, to Charles J. Bareis regarding Federal Aid Interstate Route 255, Jefferson Barracks Bridge to FAI Route 55, Monroe, St. Clair and Madison Counties.

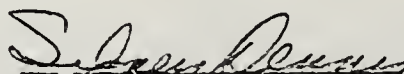
We have reviewed Preliminary Section 4(f) Statement Federal Aid Interstate Route 255 Involvement with the Area's Archaeological Resource Base, Monroe, St. Clair, and Madison Counties, dated May, 1976. This statement has adequately assessed the importance of the American Bottoms relative to the significance and inventory of archaeological resources within the right-of-way of FAI 255.


We further believe that any alignment of FAI 255 in the American Bottoms will impact archaeological sites. Since this alluvial floodplain was one of the most densely occupied regions in prehistoric times, any highway alignment from the present Mississippi River east to the bluffs and beyond would impact large numbers of sites in areas which have not been previously changed or destroyed by modern urbanization.

We further believe that mitigation of the impact of FAI 255 upon this archaeological resource base should be achieved through total salvage excavations of the sites and resources to be effected by the construction of this highway. Proper archaeological procedures associated with this work should also include curation, analysis, and publication of the data resulting from such excavations.

Sincerely yours,


Robert J. Salzer,
President


Sidney Denny,
Vice-President


Charles J. Bareis,
Secretary-Treasurer



ILLINOIS ARCHAEOLOGICAL SURVEY

109 DAVENPORT HALL

UNIVERSITY OF ILLINOIS

URBANA, ILLINOIS 61801

Cooperating Institutions:
University of Illinois
Southern Illinois University
Illinois State Museum

November 3, 1976

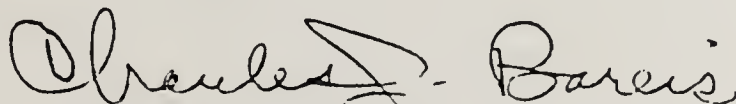
Mr. Robert R. Garvey
Executive Director
Advisory Council
On Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005

Dear Mr. Garvey:

Please be advised that the Illinois Archaeological Survey in cooperation with the Illinois Department of Transportation and the State Historic Preservation Officer performed the archaeological reconnaissance surveys, field testing and planning and cost estimating of mitigation (salvage, analysis and publication) of the 69 + archaeological sites on or adjacent to Federal-Aid Interstate Route 270 in the American Bottoms, Madison, St. Clair and Monroe Counties, Illinois.

The Illinois Archaeological Survey has been under contract as an archaeological consultant to Illinois Department of Transportation since 1959. Phase II of the contract provides for mitigation (salvage, analysis and publication). Copy of contract enclosed.

This letter signed by the Secretary-Treasurer of the Illinois Archaeological Survey is an agreement by the Illinois Archaeological Survey that, through our contract with Illinois Department of Transportation, the archaeological mitigation for the 69 + archaeological sites as described in the first paragraph will be provided for, in compliance with the Advisory Council on Historic Preservation, Guideline Part II: Data Recovery Requirements, by Illinois universities and staff members of the universities and the Illinois Archaeological Survey. (Membership list enclosed).



Charles J. Bareis
Secretary-Treasurer
Illinois Archaeological Survey

November 3, 1976
Date

Enc.

COOPERATIVE AGREEMENT

FOR

ARCHAEOLOGICAL RESOURCE MANAGEMENT

THIS AGREEMENT, entered into the 30th day of June, 1976 by and between the STATE OF ILLINOIS, acting by and through its DEPARTMENT OF TRANSPORTATION, (hereinafter called the DEPARTMENT), and the ILLINOIS ARCHAEOLOGICAL SURVEY, INC. (hereinafter called the SURVEY).

WITNESSETH:

WHEREAS, the DEPARTMENT, through its Bureau of Location and Environment in cooperation with the SURVEY, proposes to preserve archaeological objects and data, including ruins, sites, artifacts, fossils, and objects of antiquity or scientific significance during the planning and construction of transportation facilities, in compliance with the 1969 Environmental Policy Act and resultant Federal, State and local laws and regulations, and

WHEREAS, a two phased program has been developed to meet these goals, consisting of (1) Resource Investigation, which shall include work undertaken to locate, inventory and assess the significance of archaeological sites, objects and data within proposed transportation corridors. This shall include work for the records check, reconnaissance survey, preliminary testing, and evaluation of known or suspected sites of historic or prehistoric activities to determine the necessity for salvage or other mitigation procedures, and (2) Mitigation which shall include work attendant to the preservation of archaeological objects and data in the position in which they are found, or by the conservation of those objects and data by programs

of excavation, removal and preservation, or the obtaining and recording of data relating thereto when preservation is impracticable. This work will include the preparation and issuance of a mitigation report, limited to a description of the activities undertaken at the salvage site including the description and analysis of objects excavated and data collected, and

Now, THEREFORE, in consideration of the mutual covenants contained herein the parties hereto agree as follows:

A. The DEPARTMENT

1. To employ and/or assign staff recommended by the SURVEY, skilled in professional archaeological techniques and procedures, (and additional personnel as necessary) to cooperate with the SURVEY in accomplishing the Resource Investigation and Mitigation work required by this agreement.
2. To provide written notification to the SURVEY of proposed transportation sites or corridors. Maps shall be provided depicting the site or corridor of the proposed improvement, to enable the SURVEY to determine whether or not Resource Investigation work is necessary.
3. To notify the SURVEY as soon as possible as to the location of any archaeological sites which the DEPARTMENT may discover or become aware of during the planning, locating and construction of transportation improvements and to protect the site from damage or destruction until examination can be made by an archaeologist from the SURVEY working in cooperation with the DEPARTMENT.
4. To make available to the SURVEY at the time of publication a copy of the annual proposed highway improvement program, for their information.

5. To prepare reports as are deemed necessary regarding Resource Investigation and Mitigation Work and the findings thereof, to be submitted to the SURVEY for review and approval prior to final adoption.
6. To reimburse Illinois Archaeological Survey members for travel expense, meals and lodging, in accordance with current State of Illinois, Department of Finance regulations, that are attributable to and supported as a part of the cost of fulfilling the SURVEY'S responsibilities under this agreement, as provided herein. Statements or vouchers for expenditures will be submitted for approval and processing to the Engineer, Bureau of Location and Environment on a monthly basis. Estimated cost \$8,000.
7. The DEPARTMENT agrees to reimburse the SURVEY on a monthly basis for appropriate personnel to fulfill the SURVEY'S responsibilities under the terms of this agreement in the SURVEY office at the University of Illinois. This includes the salaries of an archaeologist and a research assistant working half time at an estimated cost of \$13,000. To be deposited in University of Illinois Account No. 47-32-07-301 (IDOT Archaeological Account).
8. The DEPARTMENT in consultation with the SURVEY will defray either totally or in part the cost of publishing a final archaeological report based on Resource Investigation or Mitigation work.

B. The SURVEY

1. To assign one or more of its members and/or of its staff

to cooperate with and advise the DEPARTMENT in the conduct of the Resource Investigation and Mitigation work called for in this agreement.

2. To provide inspections, reviews and reports in a timely manner.
3. To recommend to the DEPARTMENT locations where Resource Investigation work is believed desirable.
4. To advise the DEPARTMENT as to the necessity for Mitigation work, including salvage, on the basis of the Resource Investigation work, on a project-by-project basis.
5. To review and comment on or approve reports prepared by the DEPARTMENT relative to the program.
6. To provide the DEPARTMENT a report on expenditures from the University of Illinois Account No. 47-32-07-301 (IDOT Archaeological Account) at the end of the fiscal year. Any balance in this account will be applied to the cost of the program for the following year.
7. To comply with Appendix A (Equal Employment Opportunity Clause) attached to and made a part of this agreement.

BE IT FURTHER AGREED, by the SURVEY and the DEPARTMENT, as follows:

Publications and Publicity. It is agreed that the original records are to be kept by the SURVEY, but copies shall be furnished to the DEPARTMENT on request. Each party shall have the right to publish the results of investigations conducted under both phases of the program, provided the manuscript for each such publication is submitted to and approved by the other party prior to publication. Any disapproval of such manuscript must be based on reasonable grounds specifically stated in writing. No publicity shall be given to any of the results of the

investigations by either party prior to publication of the results except upon the recommendation and with the approval of the other party. The oral presentation before technical societies of unpublished archaeological data of a scientific nature obtained in these investigation may not be made by either party to this agreement except on the recommendation or with the approval of the other party. Discussions of such data with individual professional colleagues for the benefit of the investigations is permissible without prior approval of the other party to the agreement. All publications of the results of the investigations shall contain a statement of the cooperative relations between the parties.

Ownership and Custody of Specimens, Records and Scientific Data.

All archaeological objects, specimens, records and scientific data will remain in public ownership and in the custody of the Survey or their designated institutional repository.

Areal Extent of Archaeological Resource Management Program. Funds

provided by the DEPARTMENT for archaeological Mitigation work will apply only to sites on or adjacent to right of way where objects and data of archaeological value might otherwise be damaged or destroyed by construction. Only that Mitigation work which is conducted within the right of way as deemed necessary to prevent archaeological losses which otherwise may occur during normal construction operations shall be eligible for financial support by the DEPARTMENT. DEPARTMENT funds may not be used for program costs which would have been incurred had the project not been undertaken.

DEPARTMENT funds may be used to further the Archaeological Resource Management Program in borrow pits if the costs are directly attributable to the use of the borrow pit and provided it is found uneconomical to

obtain borrow elsewhere. If the borrow pit is not in public ownership, no salvage costs will be approved for DEPARTMENT participation until evidence satisfactory to the DEPARTMENT is offered showing that the private owner has waived all claims to archaeological objects and data and that such objects and data may be used for public purposes without possible private gain to any individual.

If the removal and relocation of buildings or other structures located wholly or partly within the right of way will necessitate Mitigation work at either the existing or the relocation site, the cost of performing the Mitigation work shall be paid by the DEPARTMENT provided the DEPARTMENT is in possession of acceptable proof that the buildings or structures must be located at the particular sites and that archaeological objects and data may be used for public purposes without possible private gain to any individual.

Duration of Agreement. This agreement supersedes and makes null and void previous agreements between the DEPARTMENT and the SURVEY and shall be in force and effect as of the date of signing and shall continue in full force and effect in its present form or as subsequently amended until such time as it may be terminated by the mutual consent of both parties, or until terminated by notice in writing given by one party to the other at least six months prior to the date upon which termination is to become effective with the understanding that such termination shall not relieve either party of obligations with respect to work started under this agreement before notice to terminate is given.

Illinois Archaeological Survey, Inc.

By Charles J. Davis Date _____
Secretary-Treasurer

By John J. Denny Date _____
Vice-President

By Robert K. Allen Date _____
President

State of Illinois
Department of Transportation

By Laurance B. Bond Date _____
Secretary of
Transportation

Attest S. H. Hulby Date _____
Director of
Division of Highways

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE required by the Illinois Fair Employment Practices Commission as a material term of all public contracts.

EQUAL EMPLOYMENT OPPORTUNITY. In the event of the contractor's noncompliance with any provision of this Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Fair Employment Practices Commission's Rules and Regulations for Public Contracts, the contractor may be declared nonresponsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or avoided in whole or in part, and such other sanctions or penalties may be imposed and remedies invoked as provided by Statute or regulation.

During the performance of this contract (Agreement), the contractor (Consultant) agrees as follows:

- (1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (2) That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine the availability (in accordance with the Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.*
- (4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- (5) That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.
- (6) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.
- (7) That it will include verbatim or by reference the provisions of Paragraphs 1 through 7 of this clause in every performance subcontract as defined in Section 2.10(b) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor; and that it will also so include the provisions of paragraphs 1, 5, 6 and 7 in every supply subcontract as defined in Section 2.10(a) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any subcontractor fails or refuses to comply therewith. In addition, no contractor will utilize any subcontractor declared by the Commission to be nonresponsible and therefore ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

With respect to the two types of subcontracts referred to under paragraph 7 of the Equal Employment Opportunity Clause above, following is an excerpt of Section 2 of the FEPC's Rules and Regulations for Public Contracts:

Section 2.10. The term "Subcontract" means any agreement, arrangement or understanding, written or otherwise, between a contractor and any person (in which the parties do not stand in the relationship of an employer and an employee):

- (a) for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements, which, in whole or in part, is utilized in the performance of any one or more contracts; or
- (b) under which any portion of the contractor's obligation under any one or more contracts is performed, undertaken or assumed.

BRW 1267-2
(Rev. 4-74)

* Insert here, "physical or mental handicap unrelated to ability, or an unfavorable discharge from the military service".



APPENDIX B

**SPECIAL PROVISION
FOR WATER POLLUTION CONTROL
AND**

**EXCERPTS FROM
STANDARD SPECIFICATIONS FOR
ROAD AND BRIDGE CONSTRUCTION
(JULY 1, 1976)**

STATE OF ILLINOIS
Department of Transportation

SPECIAL PROVISION
FOR
TEMPORARY PROJECT WATER POLLUTION CONTROL (SOIL EROSION)

Effective July 1, 1970

This Special Provision supercedes Article 107.30 of the Standard Specifications for Road and Bridge Construction.

Description: This work shall consist of erosion control measures ordered by the Engineer during the life of the contract to control water pollution, through use of berms, dikes, dams, sediment basins, fiber mats, netting, mulch, mulches, grasses, slope drains, and other erosion control devices and methods.

Any temporary pollution control provisions ordered by the Engineer shall be coordinated with the permanent erosion control features specified elsewhere in the contract to the extent practical to assure economical, effective and continuous erosion control throughout the construction and postconstruction period.

Materials:

Mulches may be hay, straw, fiber mats, netting, wood cellulose corn or tobacco stalks, bark, corn cobs, wood chips, or other suitable material acceptable to the Engineer and shall be reasonably clean and free of noxious weeds and deleterious materials.

Slope drains may be constructed of pipe, fiber mats, rubble, portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Engineer that will adequately control erosion.

Grass shall be a quick growing species (such as rye grass, Italian rye grass, or cereal grasses) suitable to the area providing a temporary cover which will not later compete with the grasses sown later for permanent cover.

Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer.

Others as specified by the Engineer.

construction: At the preconstruction conference or prior to the start of applicable construction, the Contractor shall submit for acceptance his schedules for accomplishment of erosion control work, as are applicable to clearing and grubbing; grading; bridges and other structures as water-courses; construction; and paving. He shall also submit for acceptance his proposed method of erosion control on haul roads and borrow pits and plan for disposal of waste materials. No work shall be started until the erosion control schedules and methods of operations have been approved by the Engineer.

Construction Requirements: The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, the surface area of erodible earth material exposed by excavation, borrow and fill operations and to direct the contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, seeding or other control devices or methods as necessary to control erosion. Cut slopes shall be seeded and mulched as the excavation proceeds to the extent considered desirable and practicable.

The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in his approved schedule. Temporary pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design state; that are needed prior to installation of permanent pollution control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion control features can follow immediately thereafter, if the project conditions permit; otherwise temporary erosion control measures may be required between successive construction stages. Under no conditions shall the surface area of erodible earth material exposed at one time by clearing and grubbing, exceed 40 acres or portion of the project such as an interchange or structure, until satisfactory temporary erosion controls are provided, unless otherwise approved by the Engineer.

The Engineer may limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent pollution control measures current in accordance with the approved schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

Under no conditions shall the amount of surface area of erodible earth material exposed at one time by excavation, borrow or fill within the right-of-way exceed 40 acres or portion of the project such as an interchange or structure, until satisfactory temporary erosion controls are provided, unless otherwise approved by the Engineer.

If to accomplish pollution control the Contractor is required or elects to seed the slopes using the permanent or final seeding outlined in the contract, he may request, in accordance with the requirements of Article 105.14(a) of the Standard Specifications, an inspection be made and if satisfactorily completed be relieved of further responsibility for the maintenance of the slopes and seeding.

The Engineer may increase or decrease the amount of surface area of erodible earth material to be exposed at one time by clearing and grubbing, excavation, borrow and fill operations as determined by his analysis of project conditions.

In the event of conflict between these requirements and pollution control laws, rules or regulations of other Federal or State or local agencies, the more restrictive laws, rules, or regulations shall apply. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials.

Method of Measurement and Payment: In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work scheduled; and are ordered by the Engineer, such work shall be performed by the Contractor at his own expense. Temporary erosion and pollution control work required, which is not attributed to the Contractor's negligence, carelessness or failure to install permanent controls, will be performed as ordered by the Engineer.

Where the work to be performed is not attributed to the Contractor's negligence, carelessness or failure to install permanent controls and falls within the specifications for a work item that has a contract price, the units of work shall be paid for at the proper contract price. Should the work not be comparable to the project work under the applicable contract items, the Contractor shall be ordered to perform the work in accordance with Article 109.04 of the Standard Specifications.

In case of repeated failures on the part of the Contractor to control erosion, pollution, and/or siltation, the Engineer reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs plus project engineering costs will be charged to the Contractor and appropriate deductions made from the Contractor's monthly progress estimate.

Pollution control may include construction work outside the right of way where such work is necessary as a result of roadway construction such as borrow pit operation, haul roads and equipment storage sites.

The erosion control features installed by the Contractor shall be acceptably maintained by the Contractor.



Standard Specifications for Road and Bridge Construction

Adopted July 1, 1976

107.01 Laws to be Observed. The Contractor shall at all times observe and comply with all Federal and State laws, local laws, ordinances, and regulations which in any manner affect the conduct of the work, and all such orders or decrees as exist at the present and which may be enacted later, of legislative bodies or tribunals having legal jurisdiction or authority over the work, and no plea of misunderstanding or ignorance thereof will be considered. He shall indemnify and save harmless the State and all of its officers, agents, employees, and servants against any claim or liability arising from or based on the violation of such law, ordinance, regulation, order, or decree, whether by himself or his employees.

107.13 Bridges over Navigable Waters. All work on navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and that the existing navigable depths will not be impaired except as allowed by permit issued by the authority having jurisdiction over the navigable waters.

107.20 Protection and Preservation of Aboriginal Records and Antiquities. The Contractor shall take reasonable precaution to avoid disturbing aboriginal records and antiquities of archaeological, paleontological, or historical significance. No objects of this nature shall be disturbed without written permission of the Engineer. When such objects are uncovered unexpectedly, the Contractor shall notify the Engineer of their presence and shall not disturb them until written permission to do so is granted.

If it is determined by the Engineer, in consultation with the Illinois State Museum, that exploration or excavation of aboriginal records or antiquities on land owned or leased by the State is necessary to avoid loss, the Contractor shall cooperate in the salvage work attendant to preservation. If the Engineer determines that the salvage work will delay the Contractor's work, an appropriate extension of contract time will be granted.

107.30 Protection of Streams, Lakes and Reservoirs. The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, and reservoirs with fuels, oils, bitumens, calcium chloride, or other harmful materials. He shall conduct and schedule his operations so as to avoid or minimize siltation of streams, lakes and reservoirs. Where, in the opinion of the Engineer, the land has a high potential for erosion the areas that can be exposed by construction operations at any one time will be subject to approval by the Engineer and the duration of the exposure of the uncompleted construction to the elements shall be as short as practicable. Erosion control features shall be constructed concurrently with other work as directed by the Engineer.

APPENDIX C

SUMMARY REVIEW OF
DIRECT CONTACTS MADE
TO OBTAIN INFORMATION
F.A.I. ROUTE 255

January 3, 1975

To: Don Sokol

From: Dr. Hillman

Subject: Project 1603 - J. B. Bridge and highway east to intersection (by-pass 50 and 3) and its

Socio-economic impact. SUMMARY of direct contacts made by Arthur Hillman in field visits to St. Louis, Missouri and Waterloo, Edwardsville, Belleville and project area in Illinois on November 26-27, and December 12-14, 1974

- East-West Gateway Coordinating Council, St. Louis - Nov. 27, Dec. 13

Leland H. Dole, Program Director, Special Projects
Richard Hsu
Al Beaudreaux
Wally Altes
Dee Joyner and others

Discussion of traffic on Mississippi River bridges, St. Louis area. Developments near Jefferson Barracks in Missouri. Governmental structures in metropolitan area. Agricultural and industrial zoning and potential development near projected highway. Rapid transit proposals for area, port development studies, recreation areas in Monroe County. Follow-up phone calls, reassessed valuations and land values.

- John H. M. McCarthy, Planner, Sverdrup and Parcel and Associates, St. Louis
Dec. 13

S and P had conducted public informational meetings relating to alternate routes of highway 410, planned to be connected with the section of highway included in this report. Inquiry was made to ascertain if any opinions were expressed about this project. Some reference to historical sites in Monroe County, primarily of local interest and not affected by project under study.

- Southwestern Illinois Metropolitan and Regional Planning Commission, Belleville
Nov. 27 and Dec. 13

Laird Starrick
George Andres and others

General orientation provided to project area. SWIMPAC is now planning agency for Monroe County, Illinois. Andres is a life-long resident of Monroe County and gave information about local attitudes and conditions.

Reference to land use plan for region with special attention to Monroe County: airport as an alternative development noted; Chapel Springs new town planned to accommodate rationally the suburban type of residential development taking place in Monroe County. Related data provided by SWIMPAC included zoning,

subdivision regulations, historic places.

Second visit concerned specifics, with reference to several documents and unpublished data, especially a table on commuting patterns.

- Southern Illinois State University, Edwardsville - Dec. 12

Robert Koepke, Industrial Studies Project. Elaboration on studies made by him for Metro-East Industrial ~~and~~ Development Commission relative to demand for industrial land and available sites, and reference also to port facilities.

Arvin Saunders, St. Louis Metropolitan Airport Authority (by phone in Edwardsville, Dec. 12)

He provided confident assurance that airport development in Illinois planned to serve St. Louis metropolitan area would be approved soon after first of year. Roads including projected J. B. Bridge development considered adequate but he added that another bridge would be needed eventually to accommodate cross-river traffic.

- Gerwin Rohrbach, St. Louis - planner and developer, Chapel Springs new town, and former planning consultant, Monroe County, Illinois.

Discussed economic and social characteristics of Monroe County, trend toward residential development, zoning (5 acre minimum for homes) and more fully, plans and development progress of Chapel Springs.

- A. F. Siedle, Zoning Administrator, Monroe County, Waterloo, Illinois
Dec. 12

Checked on zoning in project area.

- Orville Williams, Superintendent of Schools, Columbia, Illinois

Telephone inquiry and correspondence: data provided on number of children from American Bottoms area transported to school in Columbia. Incidental reference to his part in planning school facilities in planned new town.

- Norman W. Beck, Superintendent of Schools, Monroe County, Waterloo, Illinois
Dec. 12

He expressed opinion that very few school age children lived north of road in project area, and that there would be no great inconvenience and possibly some benefits.

- Arlin Obst, Agricultural Extension Adviser, Monroe County, Waterloo - by phone and Vera Wienhoff, Secretary, in office Dec. 12

Quality of farm land, crop yields.

Attitudes of farmers toward project and problems of traffic congestion.

Bill Smith, former sheriff, had become executive secretary of Farm Bureau on Dec. 1. He was not in Waterloo on date of visit.

- John Gummerscheimer, farmer, long-time school board member of Columbia school district, lives north of highway in project area. Visit to his home on Dec. 14.

He provided specific data on school children in area north of road presently being transported to Columbia, routes of school buses; also on farming and non-farmer local residents.

As a long-time local resident and former elected official, he (and his wife) gave information on fire, police and ambulance services, location of hospitals (none in Monroe County), recreation patterns, traffic. This information provided background for "windshield survey" of back roads in project area.

Incidental local contacts included one resident, the only one, who lived immediately south of highway in project area. This person recognized necessity of highway enlargement.

In addition to the above direct contacts -- office or home visits unless otherwise indicated -- there was additional gathering of data and viewpoints by telephone from Chicago, notably:

State of Illinois, Department of Local Government Affairs, John Hilbert, Chicago and Gregory Lafakis, Springfield, relative to assessed valuations in Monroe County

Don Neuses, Appraiser, Wheaton, Illinois, relative to study of land values in Chapel Springs site and nearby area.

Several inquiries about studies of impact of major highways on adjacent land values, supplemented by use of Transportation Library, Northwestern University.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/939-0568

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 11/26/74

1. Met with Tom Postol, U.S. Army Corps of Engineers, St. Louis, Mo.

Discussed sampling of river water at JB Bridge, and Mr. Postol reported that the river had been sampled recently. Data was very good; he submitted some of the data to us for our inspection. He did not comment on merits of bridge other than he felt it was needed.

2. Met with Mr. Jacob Ramsey, Prairie DuPont Pumping District.

Mr. Ramsey farms the area south of the present bridge, east of the levee and about 1/2 mile from the approach road. We explained why we were there and discussed water in vicinity. He said it was a bad year for farming; too much rain at the wrong times. He said they had a bad spill last year from industry on bluff and that district had to pump material out of creeks (presumed material was oil). He said they used to have problems with salt water from oil field to the northeast. This salt water did extensive damage to Fish Lake Drain and the drainage ditches. He was very cordial and informative.

3. Southeastern Illinois Planning Commission, Collinsville.

Met with staff. Key personnel, Bob Wyden and Laird Starick, not in, but talked to other staff. Very cordial reception. Discussed bridge in general. They were enthusiastic that it is to be constructed.

We discussed the area and noted problem associated with oil field due northeast of bridge area. Problem is two-fold - oil and salt water.

Gave G&A copies of plan documents, including zoning maps.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/939-0568

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 11/26/74

Illinois Environmental Protection Agency, Collinsville.

Met with Jim Coyne, 618-345-6220, who transmitted data on quality of Mississippi water. Samples taken, in joint effort with Missouri Clean Water Commission, at J.B. Bridge. Data reflects period prior to data received from U.S. Army Corps of Engineers.

Indicated approval of project and methods used to prepare EIS. Very cooperative. Stated that Illinois Water Survey representative, Mr. Baker, shared same office, but was out in field. Suggested G&A reps. call for data on water supply.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/939-0588

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 12/3/74

Called Missouri Clean Water Commission, St. Louis, 314-849-1313. St. Louis office reports Martigney Creek is primarily wet weather flow but it does flow constantly in its lower reaches. The Missouri Clean Water Commission has not sampled this stream. Reported as suitable for wastewater discharges (they said several such discharges occur at present).

Creek reported suitable for fishing, industrial cooling waters, and livestock watering. Said no quantitative data on stream characteristics is available.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/939-0568

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 12/3/75

Called Mr. Baker, Illinois Water Survey, Collinsville, 615-345-6220, with regard to groundwater in area adjacent to proposed facility. He stated that there is information on groundwater tables and he will send it. Information on water quality is limited; he suggests G&A take several well samples.

Groundwater is recharged by rain and back-up from river under high water conditions. There is little or no recharge from bluff area.

Water table depths range from 0 at bluff to 120 ft.; deepest is in center. At river's edge, it is about 60 ft. Iron is a problem, ranges from 3-20 mg/l. Deep wells have greatest Fe content. Private wells usually try to keep at 60 ft. level. Industrial wells go deeper, but must be treated for Fe.

Most soil in area is permeable to bedrock. Small layers of hardpan, surrounded by fine sand increasing to boulders near bedrock.

After G&A receives publications, G&A will review them. Baker will try to answer additional questions by search of files.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/839-0588

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 12/5/74

Monroe County Board of Commissioners

Called A. F. Siedly, Zoning Administrator, on recommendation of Dave Boyce. He stated there is no special flood plain ordinance; regulations would be covered by zoning, as covered in Southeastern Illinois Planning Commission documents which G&A has.



GURNHAM AND ASSOCIATES, INC.
POLLUTION CONTROL CONSULTANTS
223 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60606
312/939-0568

To: Don Sokol, Project Manager
Alfred Benesch & Co.

From: Betty A. Rose, Project Manager
Gurnham and Associates, Inc.

Re: EIS, Jefferson Barracks Bridge

Date: 12/5/74

The following contacts were made to secure permission to sample private wells used for drinking water supplies:

1. Mr. Jacob Ramsey, R.R. #1, Columbia, Illinois. Mr. Ramsey farms the area approximately 1/2 mile south of the present JB Bridge approach road, and resides just east of the levee (about 300 yards), and 1/2 mile south of the bridge. Mr. Ramsey is a member of the local levee district. We had spoken to him during November trip. He evidenced no opinion of about new bridge. We did discuss water, and he said his groundwater is not treated and does not contain iron. Very cordial.
2. Mr. Henry Range, who lives approximately 2000 ft. north of the present JB Bridge approach road, about 1800 ft. east of Fish Lake Drain. Mr. Range was asked for a sample of his well water and he supplied it willingly. Told him the purpose of the request. He was aware of the proposed new bridge construction, but did not comment or give any opinion on this. He did comment on the number of accidents on the present approach road. Very cordial. He reported he considered his water very good; has no sediment or iron and he uses it untreated as it comes from his well.

APPENDIX D

SELECTED CORRESPONDENCE

FROM AFFECTED AGENCIES

F.A.I. ROUTE 255

COLUMBIA COMMUNITY UNIT NO. 4

Orville A. Williams, Superintendent

PARKVIEW DRIVE
COLUMBIA, ILLINOIS 62236

PHONE: (618) 281-4772

January 10, 1975

Mr. Arthur Hillman, Ph.D., Consultant
Alfred Benesch & Company, Consulting
Engineers
233 North Michigan Avenue
Chicago, Illinois 60601

Dear Mr. Hillman:

In answer to your inquiry regarding Columbia Community Unit District No. 4 students transported from the Jefferson Barracks Bridge Road area, the information is as follows:

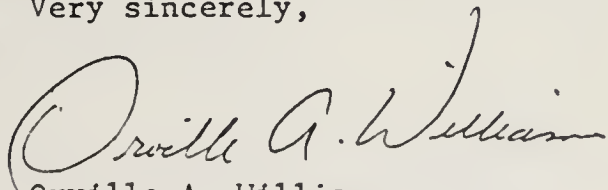
- 1) North of J. B. Bridge Road and west of Route 3: 16 students.
- 2) North on Route 3 from J. B. Bridge Road junction: 56 students.

Other judgments I have on this project include: 1) Major disruption of transportation (school and other) during the construction period; 2) Significant improvement of traffic flow after completion; 3) Major commercial and residential development in Monroe-Randolph Counties when project and feeder roads have been opened; and 4) Severe economic problems for governing agencies, i.e., schools and cities, in this period of growth.

Our Board of Education has worked closely with the Chapel Spring developer, and we are hopeful that planned communities will be the wave of the future, rather than continuous suburban sprawl.

Good health and have a good year.

Very sincerely,


Orville A. Williams

rrk

1/14

Department of Local Government Affairs

Frank A. Kirk
Director

Edward M. Levin, Jr.
Assistant Director

303 East Monroe Street
Springfield, Illinois 62706

Office of Financial Affairs
(217) 782-6956

January 6, 1975

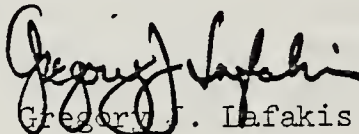
Arthur Hillman
Alfred Benesh & Company
233 North Michigan
Chicago, Illinois 60601

Dear Mr. Hillman:

Attached please find the equalized assessed valuations for Monroe County which you requested. I hope this information will be satisfactory for your purpose.

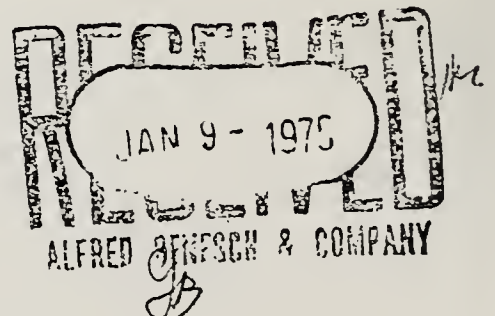
If you have further questions, please do not hesitate to call this office.

Sincerely,



Gregory J. Lafakis
Property Assessment and
Equalization Supervisor

GJL:lr



Monroe County Historical Society

ORGANIZED 1960
MONROE COUNTY, ILLINOIS

July 20, 1974

Please Reply to:

Alfred B. Mueller
301 So. Main St.,
Waterloo, Illinois 62298

Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Attention: Mr. Glen H. Sawyer

Gentlemen:

Enclosed is the Monroe County Highway map you
sent for marking the Piggott's Fort Site, and
the Side Wheeler Site, as you requested.

Thank you.

Very truly yours,

MONROE COUNTY HISTORICAL SOCIETY

Alfred B. Mueller

PS: We would appreciate receiving about five of these Monroe
County maps if you are able to send them.

10/30
7/22/74
T. 4



STATE OF ILLINOIS

DEPARTMENT OF CONSERVATION

605 STATE OFFICE BUILDING

400 SOUTH SPRING ST.

SPRINGFIELD 62706

HAROLD L. ELLSWORTH
ASSISTANT DIRECTOR

ANTHONY T. DEAN
DIRECTOR

CHICAGO OFFICE—ROOM 100, 160 N. LA SALLE ST., 60601

December 15, 1975

Mr. Donald Sokol
Chief, Environmental Services
Alfred Benesch & Company
233 North Michigan Avenue
Chicago, IL 60601

Re: FAI 255
Section 67B
J. B. Bridge & Approach
Monroe Co., Illinois

Dear Mr. Sokol:

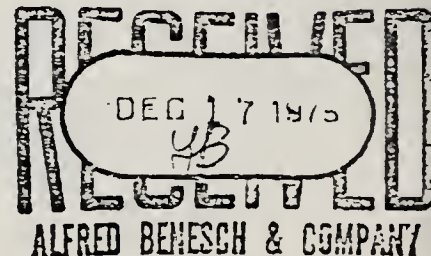
The Department of Conservation has reviewed the data made available regarding the above noted project and has determined that at this time there are no apparent conflicts between the project as described and the natural resource programs of this department.

This review has been limited to the natural resources of the project area and does not apply to cultural, historical, or archaeological resources which may be within the project limits.

Sincerely,

James G. Hart
Resource Planner
Division of Long Range Planning

JGH/n
cc: Don Boismenu



Recycled Paper



STATE OF ILLINOIS

DEPARTMENT OF CONSERVATION

605 STATE OFFICE BUILDING

400 SOUTH SPRING ST.

SPRINGFIELD 62706

CHICAGO OFFICE—1227 S. MICHIGAN AVE. 60605

October 27, 1975

Mr. Donald Sokol
Chief Environmental Studies
Alfred Benesch & Company
233 North Michigan Ave.
Chicago, Illinois 60601

Dear Mr. Sokol:

Re: FAI Route 255 - Mississippi River Bridge

I have forwarded copies of your letter to our Division of Long Range Planning in Springfield. Our people in Long Range Planning will be better able to advise you in regard to the Department of Conservations properties and long term plans in the described area.

Sincerely,

A handwritten signature in cursive script, reading "Peter J. Paladino".

Peter J. Paladino
Fishery Biologist

PJP:mv

cc: Larry Dunham
Jim Hart

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

200 Churchill Road

62706



Springfield, Illinois

Phone: 217/527-1113

May 13, 1974

Dr. Richard H. Engelard, Director

In Reference To:

Environmental Impact Statement for
Proposed Highway Project FAI 255

E 4 04 0064 I-D-#163-800-7221

ILLINOIS DEPARTMENT OF TRANSPORTATION
2300 South Dirksen Parkway
Springfield, Illinois 62764

Attention: Mr. Earl H. Bowman
Bureau of Environmental Science

Gentlemen:

BUREAU OF ENVIRONMENTAL SCIENCE		5/16/74
RECEIVED:		5-16
Bureau Chief	<i>AB</i>	5-16
TO: <i>Vib</i>	<i>25-91</i>	5/16
<i>DICK</i>	<i>PKK</i>	5/16
<i>Mike</i>		
<i>Dist. Unit</i>		

The Illinois Environmental Protection Agency, Division of Air Pollution Control has performed the "pre-coordination" highway review for FAI 255, in St. Clair County.

The air quality impact evaluation for this project has indicated that the vehicular activity on the completed facility should not result in any violation of the National Ambient Air Quality Standards.

All phases of construction activity on this project should be conducted in conformance with State of Illinois PCB Regs., Chapter 2 concerning air pollution control.

Very truly yours,

Keith J. Conklin, P.E.
Manager, Permit Section
Division of Air Pollution Control

KJC:CED:pg

cc: R. S. Nelle



DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
210 NORTH 12TH STREET
ST. LOUIS, MISSOURI 63101

IN REPLY REFER TO

LMSOD-H/LMSOD-N

22 January 1975

Mr. Richard Morris
Chief Civil Engineer
Alfred Benesch & Company
Consulting Engineers
233 North Michigan Avenue
Chicago, IL 60601

Dear Mr. Morris:

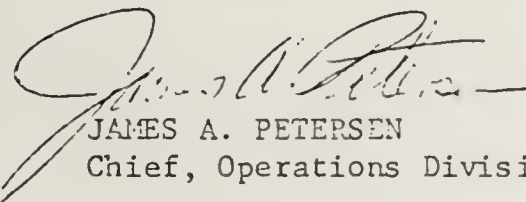
Reference your company's submittal of 18 December 1974, transmitting your report entitled "Hydraulic Study - Jefferson Barracks Bridge" as well as a subsequent meeting in our office on 16 January 1975.

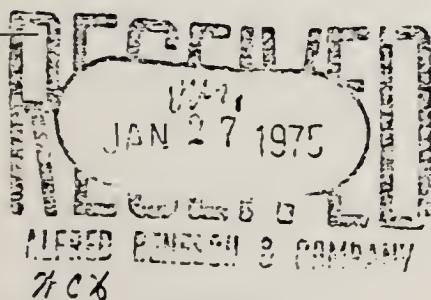
At the meeting in our office, two issues were discussed. Concerning the waterway opening, this office concurs in the recommendation that the bridge opening be extended a minimum of 400 feet at the Illinois abutment. This increase of the channel opening would negate the requirement for the previously proposed relief opening.

The second issue discussed was that concerning the vertical clearance through the navigable span. As we had discussed, the Coast Guard would have the ultimate authority by issuance of the permit for a bridge across a navigable waterway. This office, as a reviewing authority, would find no objections to the low steel elevations presented by drawings at the 16 January meeting. These drawings indicated a vertical clearance above the two percent line in excess of 60 feet. It is our belief the vertical clearance above the two percent line at this location should be no less than that being provided at the Interstate 57 Bridge under construction at Cairo, Illinois.

We trust this information will be of benefit, and if we may be of any further service please do not hesitate to call or write.

Sincerely yours,


JAMES A. PETERSEN
Chief, Operations Division





William L. Blaser, Director • Richard B. Ogilvie, Governor
December 13, 1972

MONROE COUNTY - Mississippi River Highway Bridge At Jefferson Barracks
Log #R 407-72
CONSTRUCTION CERTIFICATION #1972-330 (Sec. 10)

W. E. Baumann
Engineer of Design
Department of Transportation
2300 South 31st Street
Springfield, Illinois 62764

Dear Mr. Baumann:

On November 1, 1972 this Agency received your submittal dated October 27, 1972 which proposes construction of an interstate highway bridge over the Mississippi River at Jefferson Barracks.

This Project as described in your above referenced submittal will not have a discharge to waters of the state.

Based on the information available to this Agency, it does not appear that there will be a violation of the present applicable Water Quality Standards of the Illinois Pollution Control Board due to the Construction as stated in this proposal.

DIVISION OF WATER POLLUTION CONTROL

William H. Busch

William H. Busch, P.E.
Manager
Permit Section

TRW:CWF:ilc

cc: Division of Water Resource Management
Corps of Engineers, St. Louis
EPA-Collinsville Surveillance Office
U. S. Coast Guard, St. Louis

MISSOURI CLEAN WATER COMMISSION

State Office Building
15 East 13th Street
St. Louis, Missouri 64106
phone 316 274 6575

2460 Watson Road
St. Louis, Missouri 63119
phone 314 849-1313

1415 East Cherokee
St. Louis, Missouri 63104
phone 417 884-4033

ATTORNEY GENERAL
Robert M. Lindholm

35.1401

October 17, 1972

Mr. Robert Hunter, Chief Engineer
Missouri State Highway Commission
Jefferson City, Missouri 65101

Dear Mr. Hunter:

Your letter of October 10, 1972, has been received and the attachment showing the proposed bridge construction has been reviewed.

It is our considered opinion that the proposed construction of a new bridge across the Mississippi River at River mile 168.7 and adjacent to the existing Jefferson Barracks bridge, will not result in a violation of the Mississippi River Water Quality Standards. This certification is being made as there has been no known complaints or violations of the water quality standards from past operations. Should violations occur this certification will be withdrawn.

If you have any questions or we can be of any additional assistance, please advise.

Yours truly,

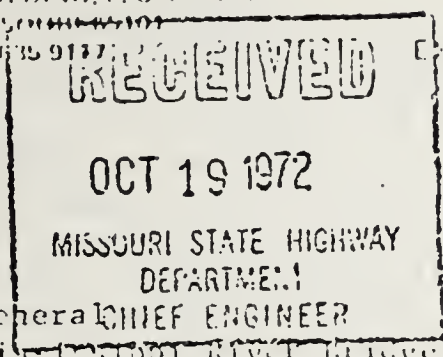
Jack K. Smith
Jack K. Smith
Executive Secretary
Missouri Clean Water Commission

JKS/JPO/cs

CC: St. Louis Regional Office, M.C.W.C.



MISSOURI CLEAN WATER COMMISSION
THE DEPARTMENT OF PUBLIC HEALTH AND WELFARE
ROOM 107 STATE CAPITOL BUILDING, P.O. BOX 154
JEFFERSON CITY, MISSOURI 65101
TELEPHONE 314 635 9137



RE: General
Mississippi River Bridge
at Jefferson Barracks
Interstate Route 255
Monroe County, Illinois
St. Louis County, Missouri

Theodore G. Scott, Chairman
VICE CHAIRMAN
John W. Barnhart, Independent
Thomas J. Fischer, M.D., M.P.H.
Clarence C. Houk, Police
Ralph Lowe, Clinton
Robert A. Mueller, St. Louis
EXECUTIVE SECRETARY
Jack K. Smith

PS



STATE OF ILLINOIS
DEPARTMENT OF CONSERVATION
SPRINGFIELD 62706

June 28, 1974

Mr. Robert E. Kronst
District Engineer
District 8
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Re: FAI 255
Jefferson Barracks Road to FAI 55-70
Madison, Monroe, and St. Clair Counties

Dear Mr. Kronst:

The FAI 255 project, Jefferson Barracks Road to F.A.I. 55-70, has been reviewed for possible impact on architectural, historical and archaeological sites adjacent to or in the project right-of-way.

The following National Register or potential National Register sites lie within the vicinity of the FAI 255 project:

- 1) Cahokia Mounds
- 2) Lunsford-Pulcher site
- 3) Jarrott Mansion
- 4) Old Cahokia Courthouse
- 5) Church of the Old Holy Family
- 6) Eads Bridge

Statements of concurrence indicating no effect were signed by this office for the Cahokia Mounds and Lunsford-Pulcher site on January 28, 1974. It has been determined the project will have no impact on the Jarrott Mansion, Old Cahokia Courthouse, Old Holy Family Church or Eads Bridge.

No impact will be made on the Fort Piggott site, the Side Wheeler accident site (1844) or the Palmer Cemetery, (sites identified by the

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June 28, 1974

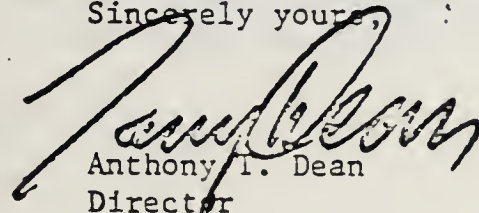
The Illinois Historic Structures Survey has indicated no sites of architectural significance are known to exist along the FAI 255 right-of-way. As indicated in their letter of February 13, 1974, however, the architectural survey is not undertaken for communities of under 500 population. As the Monroe and Madison County Historical Societies gave no indication of architectural sites, this Department assumes no known architectural sites of significance exist in the right-of-way. Should the Department of Transportation locate any structures which may appear to have architectural or historical "possibilities," photos and locations of same should be directed to this Department for evaluation.

The Illinois Historic Landmarks Survey has not completed their inventory of the three counties in question. Information supplied by the aforementioned historical societies and the Southwestern Illinois Metropolitan Area Planning Commission Report on Historic Sites for Madison, St. Clair, Monroe and Randolph Counties, however, indicates no impact on known sites of historical significance. Interim historic landmark reports for the three project counties will be directed to your office when available.

Numerous archaeological sites within or adjacent to the FAI 255 ROW have been identified by Glen Freimuth and Paul Dickinson, Salvage Archaeologists Illinois Archaeological Survey, in their Preliminary Site Reconnaissance along FAI 255. This Department supports the recommendations of the Illinois Archaeological Survey and we request that we be informed as provisions are made with the I.A.S. for final reconnaissance and Phase 2 testing. The FAI 255 project will affect archaeological sites, however, the IAS has indicated that no high priority sites will be destroyed within the proposed FAI 255 ROW. This Department is satisfied that provisions are being made, through proper salvage arrangements, to minimize loss of the archaeological data from those sites affected.

Thank you for this opportunity of review.

Sincerely yours,



Anthony I. Dean
Director

State Historic Preservation
Officer

ATD:ros

cc: Ill. Hist. Structures Survey
Ill. Hist. Landmarks Survey
Ill. Archaeological Survey



STATE OF ILLINOIS

DEPARTMENT OF CONSERVATION

605 STATE OFFICE BUILDING

400 SOUTH SPRING ST.

SPRINGFIELD 62706

ANTHONY T. DEAN
DIRECTOR

HAROLD L. ELLSWORTH
ASSISTANT DIRECTOR

CHICAGO OFFICE—ROOM 100, 160 N. LA SALLE ST., 60601

February 5, 1975

Mr. Donald A. Sokol, Chief
Environmental Impact Studies
Alfred Benesch & Company
233 North Michigan Avenue
Chicago, Illinois 60601

Subject: E.I.S.; Construction of Jefferson Barracks Bridge, Monroe County

Dear Mr. Sokol:

In reply to your letter of inquiry dated January 22, the following information on cultural resources in the proposed construction area is supplied.

The Inventory of Historic Landmarks for Monroe County and the Inventory of Historic Structures for Monroe County record no sites or structures in the proposed construction area.

The Historic Structures Survey does not conduct surveys in rural areas. In order to ascertain that no structures of historical significance in the construction area will be affected by the project, contact should be established with the local historical societies, and the Southwestern Illinois Metropolitan Area Planning Commission so that their inputs may be considered in your final report. Their addresses are:

Monroe County Historical Society
301 South Main Street
Waterloo, Illinois 62208

Southwestern Illinois Metropolitan
Area Planning Commission
203 West Main Street
Collinsville, Illinois 62234



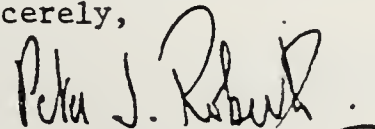
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The Inventory of Archaeological Sites has assigned high priority status to several sites in the immediate area of construction. Contact should be established with the Illinois Archaeological Survey to ensure that none of these sites will be affected by the project.

Dr. Charles Bareis, Director
Illinois Archaeological Survey
109 Davenport Hall
University of Illinois
Urbana, Illinois 61801

Thank you for this opportunity to review and comment.

Sincerely,



Peter J. Roberts
Coordinator
Illinois Historic Sites Survey

PJR/psb

cc: Dr. Charles Bareis

March 1, 1934

Historical Landmarks of Monroe County
St. Clair Ave. 100
East St. Louis Illinois 1934

File # 153.20; 153.20
Job #F-98-120-00; F-98-121-00

Subject: Federal Aid Interstate Route 255
Jeffersons Barracks Bridge to FAI Route 55-70
Madison, Monroe and St Clair Counties

Gentlemen:

In reply your letter to the Monroe County Historical Society, regarding the Historical Landmarks of the Northern portion of the map enclosed, there are three Historical Sites in History involved.

The first is the former location of the noted Fort Piggott in our County of Monroe. Fort Piggott was located where the Carr Creek is about to take its bend, and should surely be considered in the Project.

Palmier Cemetery, spelled Palmer Cemetery on your map, is noted in the History of our County, and is located near the Mobile and O. Railroad tracks.

The third Site is the Site where a Side Wheeler ran around 1844. The Mississippi River flooded its banks in 1844, and extended the Bluffs. This Site was near the Site of the location of the Card Bark School. The remains of the Wheeler were stripped of its parts, and what was not stripped, rotted away.

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Ass. to D. E.	
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Sincerely,
Monroe County Historical Society



ILLINOIS ARCHAEOLOGICAL SURVEY

100 DAYVORPORT HALL UNIVERSITY OF ILLINOIS URBANA, ILLINOIS 61801

University of Illinois
Southern Illinois University
Champaign, Illinois

March 4, 1974

SUBJECT: Preliminary Site Reconnaissance Along FAI 255 in Monroe, St. Clair and Madison Counties, Illinois for EIS requirements.

Mr. Glen H. Sawyer
District Planning Engineer
Illinois Dept. of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203

Dear Sir:

We have made a preliminary site reconnaissance along the ROW of FAI 255 in the above counties. The ROW followed was that transmitted to this office on 4 February, 1974 and is viewed as pending final approval. Any change or alteration in alignment will necessitate additional reconnaissance on our part.

A total of eleven (11) sites lie within the ROW of FAI 255. Of these eleven sites, six (6) sites will require Phase 2 testing. One site has had a Phase 2 proposal submitted, making a total of seven (7) sites within the ROW which will require Phase 2 testing. This number is subject to change as additional data comes to bear on known sites.

Thirteen sites were found in the outside of the ROW but in very close proximity to the proposed construction. These include the Lunsford-Pulcher and Cahokia Sites, both of which are on the National Register of Historic Sites. Our primary concern with these sites and others throughout the American Bottom is the borrow pit activity which is required by FAI 255 construction. The integrity of the Lunsford-Pulcher and Cahokia sites should not be destroyed by any construction activity or requirements.

In addition, two (2) sites lie within the ROW of the proposed access road from Ill. Rt. 157 and FAI 255. These sites will require Phase 2 testing also.

Our preliminary reconnaissance indicates that no high priority sites will be destroyed within the proposed ROW of FAI 255. Thirteen sites lie in close proximity to the proposed ROW so as to warrant attention should the alignment change or should they be threatened by borrow pit activity. These sites include the Lunsford-Pulcher and Cahokia Sites, whose integrity must be preserved.

When final ROW is approved, our office will undertake a final reconnaissance of specific areas and submit Phase 2 testing proposals for priority sites.

Respectfully submitted,

Glen Freimuth
Paul A. Dickinson
Glen Freimuth
Paul A. Dickinson
Senior Archaeologists

cc: C. J. Barrels



ILLINOIS ARCHAEOLOGICAL SURVEY

100 DAYVORPORT HALL UNIVERSITY OF ILLINOIS URBANA, ILLINOIS 61801

University of Illinois
Southern Illinois University
Champaign, Illinois

March 7, 1974

Mr. Robert Kronst
District Engineer
Illinois Department of Transportation
9300 St. Clair Avenue
East St. Louis, Illinois 62203File #853.10; 853.20
Job #P-98-120-00; P-98-121-64

Dear Mr. Kronst:

Thank you for your letter of February 8 requesting information on FAI Route 255, Jefferson Barracks Bridge to FAI Route 55-70, Madison, Monroe, and St. Clair counties. I have been in contact with Mr. Glen Sawyer of your office, and have delayed writing until now since we have been collecting additional important information.

Enclosed is a brief report of subject area that has been prepared by Messrs. Glen Freimuth and Paul Dickinson who do the Phase 1 reconnaissance survey work for the IAS. We are also enclosing a summary list of the known archaeological sites within and adjacent to the right-of-way of FAI 255. You will note that 24 sites are involved including two which are on the national register (Cahokia and Lunsford-Pulcher).

If and when FAI 255 is to be constructed the following archaeological matters should be built into the planning.

1. Sufficient time be allowed for complete archaeological salvage for specific sites located within the right-of-way.
2. No borrow pit areas adjacent or near the right-of-way, or at the base of and along the talus slope, and on top of the nearby Mississippi River bluffs, should be used by contractors for borrow without prior checking and approval by authorized representatives of the Illinois Archaeological Survey. I personally hope that there will be no borrow pits adjacent to the right-of-way.

Site #	Site Name	Location	Notes
1	Cahokia	St. Clair Co.	
2	Lunsford-Pulcher	St. Clair Co.	
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Mr. Robert Kronst
Page 2
March 7, 1974

3. Efforts should be initiated now to develop mechanisms in order to provide funds for complete excavations of any archaeological sites that might occur in such borrow pits.
4. Because of the extreme archaeological importance of the entire flood plain and adjacent bluff zones all contractors should be advised to have multiple tract options for borrow pit work.

We hope the enclosed information will be of use to you; please stay in touch with our office on the development of this and other highway projects.

Cordially yours,

Charles J. Barrels
Charles J. Barrels
Secretary-Treasurer

CJB:dg

Enc.

cc: Glen Freimuth
Paul DickinsonAPPENDIX
List of Sites

Sites in ROW

Culture	Type of site	Number of sites
Archaeic	camp	1
Late Woodland	camp/village	6
Late Woodland/Miss.	village	2
Unknown		2

Sites Close to ROW

Culture	Type of site	Number of sites
Archaeic	camp	2
Late Woodland	village	1
Late Woodland/Mississippi	camp/village	2
Mississippian	village	2
Unknown		4

National Register Sites Close to ROW

Culture	Type of site	Number of sites
Mississippian	ceremonial and village	2

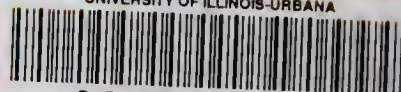
Notes: The two national register sites listed above are the Lunsford-Pulcher and Cahokia Sites.

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